ANNUAL REPORT



Missouri Department of Conservation 2003-2004

MISSOURI DEPARTMENT OF CONSERVATION



Headquarters

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JOHN D. HOSKINS, Director

December 17, 2004

The Honorable Bob Holden Governor of Missouri State Capitol Building Jefferson City, Missouri 65101

Dear Governor Holden:

Transmitted herewith is the report of activities, accomplishments and transactions of the Department of Conservation for fiscal year July 1, 2003 through June 30, 2004. This annual report was submitted to the Conservation Commission by Director John D. Hoskins, and formally approved for printing and distribution at our regular monthly meeting on December 17, 2004.

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Sincerely,

CYNTHIA METCALFE, Chairman

Conservation Commission

c: Governor-Elect Matt Blunt

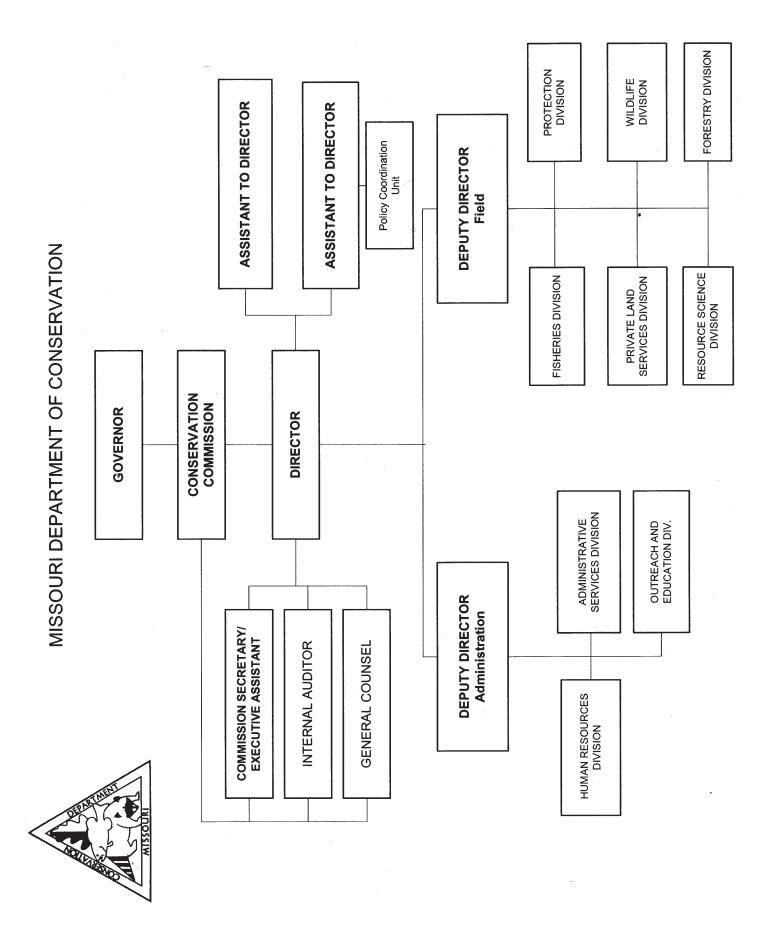
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Missouri Department of Conservation Fiscal Year July 1, 2003 to June 30, 2004

CONTENTS

TABLE OF ORGANIZATION	1
DIRECTOR AND DEPUTY DIRECTOR	3
GENERAL COUNSEL	4
INTERNAL AUDITOR	4
POLICY COORDINATION UNIT	5
ADMINISTRATIVE SERVICES DIVISION	10
BUSINESS AND SUPORT SERVICES SECTION	11
DESIGN AND DEVELOPMENT SECTION	16
FEDERAL AID COORDINATION	17
INFORMATION TECHNOLOGY SERVICES	17
FISHERIES DIVISION	21
FORESTRY DIVISION	29
HUMAN RESOURCES DIVISION	46
OUTREACH AND EDUCATION DIVISION	51
PRIVATE LAND SERVICES DIVISION	59
PROTECTION DIVISION	
RESOURCE SCIENCE DIVISION	70
WILDLIEF DIVISION	01



JOHN D. HOSKINS, DIRECTOR JOHN W. SMITH, DEPUTY DIRECTOR STEPHEN J. WILSON, DEPUTY DIRECTOR



Messrs. Hoskins, Smith and Wilson share responsibility for administration of the Department's nine divisions—Administrative Services, Fisheries, Forestry, Human Resources, Outreach and Education, Private Land Services, Protection, Resource Science and Wildlife. The General Counsel and Internal Auditor report to the Conservation Commission and to the Director; two Assistants to Director perform special assignments and report to the Director. The functions and activities of the divisions are summarized in the following pages for fiscal year 2003–2004.

GENERAL COUNSEL

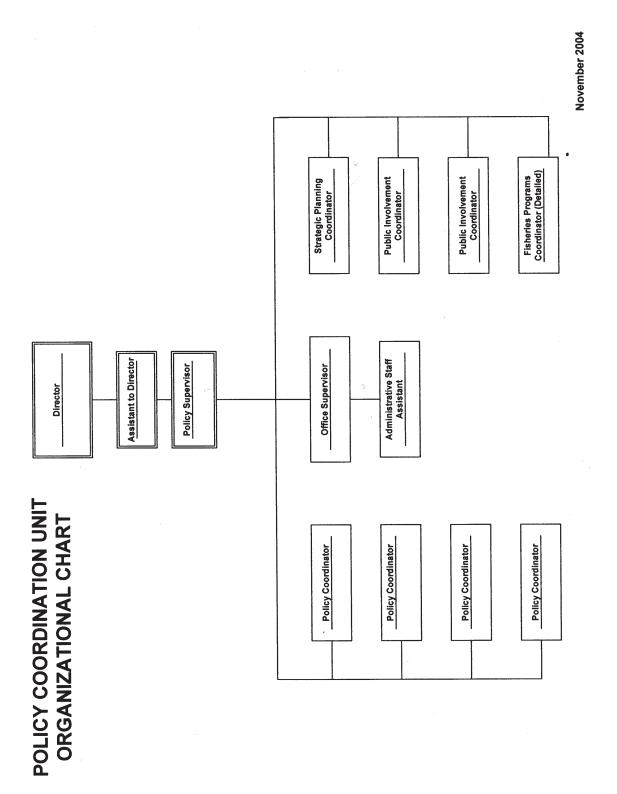
All legal services to the Department of Conservation are supplied a general counsel and secretary with offices in the headquarters in Jefferson City. The general counsel serves as legal advisor to the Conservation Commission and to the Department's staff. The general counsel attends all meetings of the Conservation Commission. All litigation in which the Department of Conservation, the Conservation Commission or a member of the staff is a party is managed by the general counsel. Other functions include services to other attorneys and prospective donors for the Department's Donation Program; assistance in law enforcement training for conservation agents and other employees; and liaison with the office of the Attorney General and prosecuting attorneys.

INTERNAL AUDITOR

It is the policy of the Commission to provide an internal audit function as a means of supplying the Director and top management with information to better control the operations for which they are responsible.

This function is performed through an internal auditor, two temporary staff positions, and a secretary. It is the internal auditor's responsibility to review operations within the Department at appropriate intervals to determine whether they are effectively carrying out their functions of planning, accounting, custody and control in accordance with management instructions, policies and procedures and in a manner consistent with the Departments objectives. This is accomplished by:

- 1. Reviewing plans, procedures and records for their adequacy to accomplish intended objectives and appraising policies and plans relating to the activity or functions under audit review.
- 2. Reporting on the results of audit examinations, including recommendations for improvement.
- 3. Recommending improvement of management controls designed to safeguard Department resources and ensure compliance with laws and regulations.
- 4. Conducting special examinations at the request of the Commission or the Director.



POLICY COORDINATION UNIT

Policy Coordination Unit's mission is to serve the Director's Office, Divisions and Regions by managing complex, sensitive or time-critical issues with experience, creativity, and decisive, diplomatic action.

Missouri River Coordination

- Worked with the COE, FWS, and MDC managers to implement approximately 800 acres of shallow water habitat on the Missouri River for the endangered pallid sturgeon
- Guided implementation of the Missouri River Mitigation Project through participation on the interagency Coordination Team (COE, FWS, Iowa, Kansas, Nebraska, Missouri)
- Developed a Missouri River Mitigation Project Monitoring Program through participation on the Missouri River Mitigation Project Monitoring and Evaluation subcommittee
- Developed an ArcView project for the COE, identifying Missouri River Mitigation Project acquisition priorities for the state of Missouri, through coordination of MDC staff statewide
- Served as State of Missouri's delegate to the 8-state Missouri River Natural Resources Committee which provides technical, science based coordinated recommendations regarding the operation, management, and maintenance of the Missouri River system.
- Provided technical and policy support to the Director and Deputy Director on the national issue of the Missouri River Master Flow Manual revision
- Served as Steering Committee Chair for the 2004 Missouri River Natural Resources Conference held in Columbia, Missouri, May 22–26, 2004

Mississippi River Coordination

- Guided implementation of the authorized \$33 million habitat restoration and long-term resource monitoring program by representing Missouri on the Upper Mississippi River Environmental Management Program Coordinating Committee and A-Team
- Coordinated development of MDC habitat project ideas in the Mississippi River, prioritized, and shared with the Corps of Engineers
- Served on the Executive Board of the Upper Mississippi River Conservation Committee to identify river habitat and information needs
- Pursued federal support and funding for habitat restoration and water quality initiatives through service on the Executive Board of the Lower Mississippi River Conservation Committee
- Partnered to minimize river impacts of navigation operation and maintenance and identify habitat restoration opportunities by representing the Department on the River Resources Coordination Team (COE Rock Island District) and the River Resources Action Team (COE St. Louis District)
- Provided technical review and comment for the Department on the Upper Mississippi River-Illinois Waterway System Navigation Study through membership on the Navigation Environmental Coordination Committee
- Represented Missouri in the newly formed 16-member (state, federal, and NGOs) Middle Mississippi River Partnership to bring attention and resources to this portion of the river to achieve habitat and floodplain restoration

AmerenUE/Bagnell Dam Relicensing

• Worked with Federal Energy Regulatory Commission (FERC), State Attorney General's Office, Missouri Department of Natural Resources, stakeholders, and MDC staff to ensure the greatest benefit to the resource through the relicensing of Bagnell Dam

White River Basin Coordination

• Brought in federal cost-share dollars for fisheries studies and recreational use evaluations through Department representation on the White River Basin Comprehensive Study Management Team

Environmental Review and Coordination

- Analyzed over 800 sites and provided 617 response documents to private sector requests for information regarding Missouri's species and communities of conservation concern
- Provided forest, fish and wildlife conservation comments to the COE on statewide resources affected by development activities regulated by the Clean Water Act, Section 404/401 Program. This involves working with field staff from all eight MDC regions, all five COE districts with authority in Missouri (St. Louis, Kansas City, Little Rock, Memphis, Rock Island), U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, and Missouri Department of Natural Resources.
- Coordinated Department review and comments on the Howard Bend Levee Environmental Impact Statement
- Coordinated Department review and comments on the NEPA documents for Missouri Department of Transportation (MoDOT) I-70 improvement projects
- Served as Department representative on MoDOT's Route 17 Value Engineering Team study to determine least environmentally damaging alternatives
- Coordinated Department review and comments for Clean Water Act Section 404 permit for St. Peters/Hwy 370 floodplain development
- Coordinated Department review and comments on Smartt Airport Expansion Environmental Assessment
- Coordinated Department input to Rock Island and St. Louis Corps District's dredging program along the Upper Mississippi River, and to COE Kansas City District's dredging program at the mouth of the Osage River
- Coordinated Department input to the COE Kansas City District for renewal of commercial sand and gravel mining permits on the Missouri River
- Assisted the City of Branson with environmental and regulatory permitting issues related to their planning and development projects
- Coordinated Department response to a private landowner's request to withdraw water from Hunnewell Lake Conservation Area
- Coordinated Department response to a private landowner's request to develop experimental stream bank stabilization projects on private land

Intra-agency Coordination

- Obtained permits and authorization for Department development projects including NPDES blanket permit, fish hatchery discharge permits, boat ramps, stream accesses, wetland development and restoration projects, shooting ranges, bridge replacements, hatchery water supply, cultural resources
- Ensured Department compliance with State Emergency Management Agency (SEMA) floodplain development requirements
- Coordinated cultural resources surveys and other cultural resources activities Department-wide
- Provided oversight of the Department's strategic plan
- Chaired the Department Instream Flow Task Force to develop a Department policy ensuring stream flow necessary to maintain fish and wildlife resources
- Coordinated the development of the Department's new Stream Initiative
- Initiated improvements to the Department's land tracking system including integration with GIS
- Coordinated preparation of the Executive Budget with MDC divisions and Business and Support Services

- Participated on oversight team for the Comprehensive Wildlife Strategy
- Administered the Atlas database which contains information about Department owned, leased, and managed areas
- Developed a searchable filing system for management of Policy Coordination's records and files
- Worked with Department staff to resolve environmental and cultural resource issues related to planned improvements at Jerry J. Presley Conservation Education Center and Roaring River Trout Hatchery
- Served on team to develop wetland restoration projects on Department leased lands at Truman Reservoir
- Coordinated document review and processing of cooperative agreements and license agreements associated with implementation of the Missouri River Mitigation Project
- Coordinated the review and revising of the Area Resource Management Policy and Procedures Manual
- Served on the Department's Accessibility Committee
- Shared information on agency issues through four Lunch and Learn presentations to Central Office staff
- Shared information and maintained service relationships through designated Policy Coordination Unit liaisons to each division and region

Inter-agency Coordination

- Enhanced conservation partnerships with state and federal agencies, non-government organizations, and neighboring state game and fish agencies
- Coordinated leasing and management agreements on COE lands
- Worked with the COE on fish habitat restoration in Bull Shoals Lake and wetland habitat restoration on Truman Lake
- Participated on the Inter-agency Agricultural MOU-Wetland Oversight Committee and the Interagency Mitigation Banking Review Teams
- Participated in the state Interagency Planning Council
- Participated in inter-agency mitigation review team for the St. John's Bayou/New Madrid Floodway Project to ensure COE compliance with NEPA requirements
- Continued work to secure \$1.7 million for Truman Lake Paddlefish Mitigation project
- Coordinated Department comments on COE operation and maintenance projects on the Missouri and upper Mississippi rivers (e.g., dike and revetment construction/maintenance), and on Table Rock Lake, Bull Shoals Lake, and Truman Lake
- Planned and developed agenda with St. Louis District COE for the second COE/DNR/MDC interagency partnering meeting
- Participated in the IAFWA Invasive Species pilot program
- Represented the Department on the Missouri Lewis and Clark Bicentennial Commission
- Represented the Department on the Mississippi River Parkway Commission of Missouri
- Represented the Department on the State Inter-Agency Council for Outdoor Recreation
- Represented the Department at the U.S. Army Corps of Engineers' annual Inter-district Operations and Maintenance Conference
- Assisted DNR with development of Total Maximum Daily Load (TMDL) for Jack's Fork River and water use issues in southwestern Missouri
- Served as point-of-contact for long-standing COE mitigation projects in southeast Missouri
- Served on the Missouri Natural Resources Conference Steering Committee
- Served on the 2003 Midwest Conference Steering Committee
- Served as Chair of the MO Chapter of the American Fisheries Society Rivers and Streams Technical Committee

Public Involvement, Social and Economic Survey Analysis

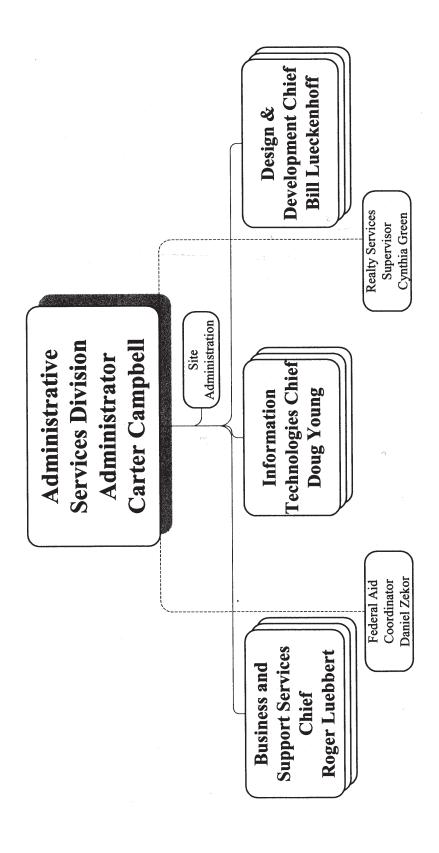
- Collaborated with University of Missouri faculty to conduct survey of Missourians interest in outdoor recreation and opinions and awareness of the Department of Conservation
- Conducted analysis and reporting of data from the 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation
- Coordinated economic analysis of fishing, hunting, and wildlife-associated recreation in Missouri
- Distributed one-page summaries of human dimensions and socio-economic conservation information
- Assisted Department staff with materials and socio-economic handouts and posters for Conservation Forum meetings
- Provided socio-economic review to Department Public Use Committee
- Assisted Department staff with socio-economic information for preparing the Comprehensive Wildlife Strategy
- Assisted in developing and participated in an ongoing Human Dimensions Working Group within the Department of Conservation
- Developed a cooperative proposal and secured federal cost-share funding to conduct a recreational use survey on Table Rock Lake, Bull Shoals Lake, and Lake Norfolk as part of the White River Basin Comprehensive Study
- Recorded public input provided at eight Conservation Forums, developed a comprehensive report and distributed copies of the report by mail to over 1200 invitees and on the MDC website. Initiated planning for the next round of eight forums.
- Assisted staff with a variety of policy facilitation tasks and public involvement information requests
- Reviewed and summarized articles for Publications Files Annotated Bibliography

Training and Facilitation

- Facilitated annual coordination meeting between the Department, Arkansas Game and Fish Commission, U.S. Army Corps of Engineers, Southwestern Power Administration, and several NGOs, regarding fisheries management, dissolved oxygen, and White River Fisheries Partnership
- Organized and conducted cultural resources training for Department staff
- Facilitated the RAPTOR Committee which oversees the programs that are used for agency budgeting and accomplishment reporting
- Facilitated development of the management plan for Roubidoux Creek Conservation Area
- Taught five Academy for Leadership Excellence courses
- Organized training on endangered species for Policy Coordination staff

Papers, Publications, and Awards

- Roell, Michael J. and W. M. Turner, The Primary Agents of Change in Missouri Stream Systems: Challenges and Opportunities, prepared for John Hoskins, Director, Missouri Department of Conservation. April, 2004.
- Canaday, Brian D., received the 2004 A. Stephen Weithman, Jr. Leadership Award from the Missouri Chapter of the American Fisheries Society.
- Made an oral presentation of the Looking for the "Win-Win" in Natural Resource Conservation: A Case History at the 2003 Midwest Fish and Wildlife Conference.
- Thorne, David H. 2004. Urban Missourians and Outdoor Recreation. Presented at Urban Systems Workshop, Missouri Department of Conservation.
- Thorne, David H. 2004. Human Dimensions and the Conservation Monitor Survey. Presented to Strategic Planning Committee of Department of Health and Senior Services.
- Thorne, David H. 2004. Human Dimensions in the Missouri Department of Conservation. Presented in Panel Session entitled "Structure and Function of Human Dimensions in State Wildlife Agencies" at the 10th International Symposium on Society and Resource Management.



ADMINISTRATIVE SERVICES DIVISION

Business and Support Services Section

The Business and Support Services Section was formed in Fiscal Year 2003, to better serve our internal and external stakeholders. The section was formed by combining two of the Department's major service sections; Fiscal Services Section and General Services Section. The new section is commonly referred to as BASS.

Business and Support Services (BASS) manages a broad range of functions that support a variety of Department operations. The overall mission of BASS is to provide unsurpassed services to our internal and external stakeholders; and to carefully manage the Department's assets which have been entrusted to our care.

Responsibilities and Activities:

- Coordinate and administer budget and finance functions.
- Operate 17 maintenance centers statewide.
- Prepare vehicles for specialized uses including law enforcement, fire suppressions, agricultural work, fisheries management and research activities and other field applications.
- Operate the Sign Shop for making Department Area signs; specialty orders; refurbished area signs; related signs and engraved name plates.
- Operate Distribution Center, warehouse, media loan service and provide merchandise for the nature shops at nature centers and office sites.
- Operate offset printing and central office mail center.
- Process revenue collections.
- Provide models of future receipts and disbursements for planning and budgeting purposes.
- Develop fiscal and economic policies for Department agricultural operations.
- Administer and maintain the automated point-of-sale (POS) permit distribution system.
- Process expenditures for the Department, including payroll.
- Process fixed asset transactions.
- Review legislative proposals for possible impact on the Department.
- Coordinate lease and rental agreements.
- Prepare Internal and Executive Budget requests, financial reports, and cash flow projections.
- Coordinate Resource, Activity, Planning, Tracking, Organizing and Reporting (RAPTOR) support and operations.
- Provide support service to divisions and field staff.
- Administer title and license/registration records on Department vehicles, boats, motors, and trailers.
- Review purchasing documents for compliance with state and agency rules and regulations.
- Prepare financial and management reports and information.
- Maintain 1,022 water craft.
- Develop and implement fiscal related policies and procedures.
- Administer Department's uniform/clothing policy.
- Administer the commercial permit distribution system.
- Administer the landowner permit system.
- Administer the Optical Character Recognition (OCR) system for processing deer and turkey check sheets.
- Present Financial Management section of Academy for Leadership Excellence.
- Procure, repair and dispose of the vehicle fleet, marine and other mechanical equipment.
- Maintain 1,589 wheel and track vehicles, and 1,022 trailers statewide.

• Maintain 4 aircraft to be utilized in support of the official Department mission. Mission includes wildlife census counts, aerial radio telemetry studies for fish and wildlife, water pollution investigation, surveys for land acquisition, and other activities associated with management of the state's fish, forest and wildlife resources.

Accomplishments:

- Continued to develop and define procedures for including cropping contacts.
- Assisted in development of a new accomplishments monitoring system (RAPTOR).
- Coordinated administrative and collection activities at three public auctions and two seal bids to dispose of surplus equipment that yielded approximately \$1.7 million in return on vehicle and equipment with excessive hours, miles or not cost efficient to maintain or repair, during Fiscal Year 2004.
- Processed payments for Department's fleet fuels and lubricants.
- Manufactured 39,650 signs at the Sign Shop during Fiscal Year 2004.
- Filled more than 1,850 print job requests through the Department's Print Shop; and the mail room handled approximately 1,000,000 parcels; and delivered 4,000 packages.
- Administered the POS permit sales system, accounting for 2.2 million sport hunting and fishing permits sold for a total value of \$30.1 million (2003 permit year).
- Sold a total of 7,240 permits through the Central Office permit sales account for a total value of \$246,595 (2003 permit year).
- Issued 591 lifetime hunting and fishing permits.
- Administered operation of the special permits program including:
- Landowner permits—over 46,000 applications processed and over 123,000 permits issued in 2003.
- Managed hunt permits—over 7,500 applications processed for over 25,000 individual hunters in 2003.
- Implemented hunting and fishing permit sales over the Internet for the first time. 8,300 permits sold for a value of \$217,000 issued online during the first 10 months.
- Successfully redesigned hunt/fish permits to improve customer satisfaction.
- Responded to an average of 2,000 calls each month coming in on the toll free permit vendor hot line. Calls typically require looking up conservation numbers, explaining regulations, helping vendors with equipment problems, etc.
- Reviewed and responded daily to e-mails forwarded from the Outreach and Education Division's Ombudsman regarding hunting and fishing permit issues.
- Issued over 150,000 commercial permits, tags and bands.
- Issued approximately 400 collector permits and approximately 40 rehabilitation permits.
- Continued development of new POS system for selling hunting and fishing permits according to MDC regulatory revisions.
- Produced an annual report detailing sales of merchandise and cost of sales at field locations.
- Negotiated a lower mail rate than any other State agency, for processing the Department's mail.
- Maintained perpetual inventory records for 28 field locations selling merchandise and reconciled these to physical inventory counts.
- Completed Phase III implementation of the sales and inventory system for the consignment areas. Currently have 20 of the consignment areas using the system.
- Assisted the State Treasurer's Office with the evaluation of the statewide credit card contract. MDC is currently in the process of converting to the new contract.
- Assisted the Internal Auditor with the development of a new procedure for supervisory approval of expenditures to be implemented in Fiscal Year 2005.
- Responded to approximately 350 fiscal notes.
- Processed over 3,634 durable property inventory transactions, real property inventory transactions, and lease transactions.

- Continue to assist IT Section with the development of RAPTOR and a new Agricultural Crop computer program.
- Completed Contracting and Procurement Participation Plan for Minority and Women-Owned Business Enterprise Programs (MBE/WBE).
- Completed MBE/WBE Procurement Analysis for Fiscal Year 2004.
- Developed initial reconciliation procedures between RAPTOR data and SAM II data.
- Developed revisions to RAPTOR reconciliation to include updated processes, increasing efficiency.
- Served as Department liaison and security administrator for SAM II.
- Updated the Business Policy Manual on a continual basis.
- Decentralized the expenditure process whereby expenditures are entered directly into the SAM II System by the Regional Offices and approved by Central Office Accounts Payable Section.
- Assisted field staff with the bidding process for several cooperative projects with MoDOT and the use of Highway Enhancement Funds.
- Processed 30,420 cash receipt documents. It should be noted this encompasses transactions from the field offices that are entering cash receipt documents at their office.
- Processed 1,644 SAM II/RAPTOR journal voucher documents.
- Processed 110 requisition documents.
- Processed 2,813 purchase order documents.
- Processed 111 receivable documents, includes 2 receivable credit memo documents.
- Processed approximately 83,258 payment voucher documents.
- Processed approximately 2,678 receiver documents.
- Processed approximately 5,504 vendor invoice documents.
- Processed 48,087 payroll checks (36,408 salaried and 11,679 hourly).
- Presented Financial Management Training statewide in the Academy for Leadership Excellence and at the New Employee Orientation classes.
- Continue managing 2 warehouses consisting of approximately 17,000 square ft.
- The Distribution Center processed more than 9,300 sales orders; responded to over 6,950 requests for free publications to teachers, youth leaders and home schoolers; shipped 15,878 packages to vendors of hunting and fishing permits; shipped 1,000 packages to Stream Teams volunteers; 600 packages to MDC nature shops; and provided over 9,000 packages to the general public and MDC field employees for fairs and special events.
- Processed and distributed materials for 75 projects for various MDC Divisions, including distributing materials for Eagle Day events, information to teachers and youth leaders, information to various employees across the state, etc.
- Continue shipping and providing approximately 260 Missouri Conservationist cassette tapes/cds monthly to libraries, to make the Missouri Conservationist magazine available to the blind.
- Flew 1,542 hours to accomplish the Department's mission with respect to resource management, personnel transport, law enforcement, fire protection, photography, and wildlife transport.
- Maintained aviation services staff including a professional aviation technician with inspector's authorization; three full time, professional pilots and the Chief Pilot.
- Continued operations, maintenance and upkeep on the Department's 6,210 square foot hangar located at Memorial Airport in Jefferson City, Missouri, which also has 2,168 square feet for offices and waiting area.
- Provided flight support to Department staff with an aviation fleet consisting of the single engine Cessna 210; twin-engine Cessna 402; Bell Jet Ranger helicopter and the King Air 200 airplane.
- Continue agreement on King Air 200 airplane with MoDOT, which was jointly purchased in May 2000. Cost of operation is proportional to each agency's use of the airplane and the plane is housed in MDC's hangar and maintained by MDC's aircraft mechanic. (Benefits of this partnership include shared flight resources and improved efficiency of both agencies' aircraft operation).

- Processed replacement vehicles assigning license plates and inventory identification numbers.
- Conducted annual vehicle and equipment safety inspections.
- Maintained Department's \$40,000,000 vehicle fleet, which included: 1,589 wheel and track vehicles and 1,022 trailers distributed statewide.
- Distributed new equipment to Maintenance Centers in Salem, Springfield and Brookfield for preparation for specialized uses including law enforcement, fire suppressions, agricultural work, fisheries management and research activities and other field applications and assignment and prepare surplus equipment for disposal.

MISSOURI DEPARTMENT OF CONSERVATION

Actual Funds Available and Disbursements For Fiscal Year 2004

Sales Tax
Hunting, Fishing & Commercial Permit Sales
Federal Reimbursements
Agricultural Sales
Timber Sales
Other Miscellaneous Receipts
Miscellaneous Fees & Tags
Surplus Property
Interest
Publication Sales
Nursery Stock Sales
Grants, Gifts, Bequests & Donations
Contractual Services
Rentals
Miscellaneous Sales
Land Sales
Yield Tax
Refunds
Damage Reimbursements414,001
Concession Income
TOTAL RECEIPTS
DISBURSEMENTS
Construction & Development
Construction & Development
Wildlife
Wildlife .14,479,161 Forestry .14,235,963 Protection .13,294,140
Wildlife .14,479,161 Forestry .14,235,963 Protection .13,294,140 Administrative Services .26,745,633
Wildlife .14,479,161 Forestry .14,235,963 Protection .13,294,140 Administrative Services .26,745,633 Design & Development .10,795,902
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Design and Development Section

Design and Development Section provides professional engineering, architectural and construction services to the Department in support of the Department's capital improvement program. Design and Development is also responsible for the maintenance and repair and renovation of the Department's extensive statewide infrastructure on lands owned or leased by the Department. All work is highly specialized in direct relation to the Department's resource programs. Typical capital improvements projects are the development of wetlands, fishing lakes, fish hatcheries, nature centers, disabled user access trails, river and lake public use access areas, stream stabilization and corridor improvements and hunter safety training facilities, including shooting ranges. In FY2004, \$12.8 million was expended on construction/development projects in the Department's capital improvement program.

Design and Development handles all aspects of design and development on construction/development projects which includes: performing development investigations, conducting feasibility studies and environmental assessments; preparing design drawings and contract specifications; construction by in-house staff or contracting for construction services; and administering construction contracts. Boundary, construction and topographic surveys of Department lands and development projects are performed under the direction of the Division's registered land surveyors. Support staff provides technical assistance in the areas of: clerical, soils/geotechnical, state of the art CADD drafting applications, quality control through contract supervision, and the Department's County Aid Road Trust (CART) program. The CART program provides a mechanism to share the cost of road rock placement on County/Township roads leading to Department areas. The cartography unit archives all department land and produces department maps.

The Design and Development Construction Unit handles the maintenance, repair, and renovation of the Department's extensive statewide infrastructure on lands owned or leased by the Department. Design and Development is responsible for the total maintenance of unstaffed conservation areas in north Missouri and the management and maintenance of Department facilities on a statewide basis. In-house staff also has the responsibility for construction of numerous new capital improvements projects each year.

Construction staff completed approximately 1000 renovation and repair and small construction projects which included pond, parking area, entrance road, terrace and waterway construction, pond repair, old field renovation, clearing for fence lines, fire lines and tree plantings. Many miles of road and levee were trimmed of brush by use of long reach mowers. Several large stream renovation projects were accomplished. Other projects included building repairs, heating and cooling system installation and repair, construction of low water crossings, sidewalk construction, and other miscellaneous projects. Area maintenance crews performed routine maintenance including mowing, litter pickup and sign replacement on 293 conservation areas in north Missouri. Routine road maintenance was completed on more than 1200 miles of road.

Design and Development personnel have expertise in the surveying, soil mechanics, hydrology, river hydraulics, structural, architectural, mechanical, electrical, environmental, computer, CAD, drafting, building and major earthwork construction, quality control, and maintenance fields. Like the rest of the Conservation Department, the Design and Development staff has a proven track record of being the best in the nation.

Design and Development engineers take pride in being conservation engineers utilizing a combination of engineering expertise and biological understanding. It is the goal of the designer to blend Department facilities into the surrounding environment while enhancing the natural resource habitat. Design and Development personnel communicate and team with resource managers, biologists, and other fellow professionals in the field of conservation to transform the biological requirements of wildlife and fisheries management into naturally operating facilities. Design and Development personnel design and construct projects to provide for both environmental benefits and increased public use opportunities.

A sampling of the capital improvement and repair and renovation projects handled by Design and Development in FY 2004 is listed below:

- Columbia Bottom CA-Visitor Center, Boardwalk, and Exploration Stations
- Coldwater Hatchery Study—Statewide Hatchery Production Design Evaluation
- Northeast Regional Office-New Education and Service Center
- Lake Paho CA-Spillway repairs
- Kansas City Region CAP—Lexington Missouri River Access
- Perry (Ralph and Martha) Memorial CA-Wetland spillways and water control structures
- Triangle Boat Club—Mississippi River Access Development
- Dalton Bottoms Access—Missouri River Access Development
- Block Hole Access—Access Development
- Pelican Island Access—Missouri River Access Development
- St. Stanislaus—Wetland mitigation for Pelican Island Access
- Blind Pony Lake CA-Structure Gates Replacement
- Castor River CA—Shooting Range
- Mineral Area College Range—Shooting Range Renovation
- Steele Shooting Range—Renovate Shooting Range
- Gist Ranch—Shooting Range
- Burr Oak Woods Nature Center—Interior Renovation
- Hartell CA-Classroom
- Riverbreaks CA-Milne Dam-Dam Safety Modifications
- Blind Pony Hatchery—Aeration system
- Shepherd of the Hills and Roaring River Hatchery—Ultra-violet sterilization system
- Lewis and Clark Infrastructure Development—Hart Creek Bridge
- Conservation Headquarters—Replacement of exterior walkway and roof beams
- Conservation Headquarters-Storage Facility and Print Room
- Springfield Conservation Nature Center—HVAC System Controls renovation
- Fairgrounds Park Lake—Lake Renovation
- Ten Mile Pond—Water Control Structure Replacement
- 14 Streambank Stabilization Projects

Federal Aid Coordination

Federal Aid Coordination—The Department regularly participates in a number of federal aid granting opportunities from various federal agencies including, but not limited to, the U. S. Fish and Wildlife Service, U. S. Forest Service, Corps of Engineers, Environmental Protection Agency, and Natural Resource Conservation Service. Federal grants, which usually require a state match, allow the Department to stretch precious state funds. For fiscal year 2003-2004, the Department managed 76 federal grants totaling \$15,393,611. Most significant of these were the traditional Wildlife Restoration grants (\$5,235,909) and Sport Fish Restoration grants (\$5,775,628).

Information Technhology Services (IT)

Information Technology Services Section provides data, telecommunications, radio system management, helpdesk operations, software support, network operations, application development functions.4

Responsibilities and Activities:

- Technology Planning
- Technology Budgeting
- Computer Center Operations
- Desktop Technology
- Local Area/Wide Area Network Support
- Intranet Services and Support
- Application Software Development
- Data Base Administration
- Two-Way Radio Services and Support
- Telephone Services and Support

Accomplishments:

General

- Grepared 653 purchase orders and processed invoices worth almost \$2,053,111.18 in new computer hardware and software.
- Supported numerous organizational moves in the Central Office and field offices by relocating telephones, cables, PCs, printers, etc.
- Supported the State Chief Information Officer (CIO) and State Information Technology function by participating in the Information Technology Advisory Board (ITAB).
- Supported development of an Enterprise Architecture for the state by participating in various subcommittees addressing various areas.
- Supported the State Executive Telecommunications Advisory Council (SETAC) which prepared FY 05 telecommunications cost allocation plan for OA DP&T.
- Supported a total of 424 student trainings for MDC employees.

Technical—Application Development Unit

- Developed one new web application to support Forest Fire Tracking. Made major updates to the Raptor web application to support Expenditures and Accomplishments. Maintained and supported a total of 9 web applications on the Intranet.
- Developed 4 new Access applications to support License Plate Receipts, Forest Crop Land, Fiscal Interface to the Lands Database, and PILT interface to the Lands Database. Made major updates to the Hunter Method Exemption application. Maintained and supported a total of 30 Access applications.
- Developed 2 new Interactive Voice Response (IVR) applications to support Spring Turkey Check and the Deer Managed Hunt. Maintained and supported a total of 7 IVR applications.
- Maintained and supported 14 Visual Basic (VB) applications.
- Replaced 2 Clipper applications with new Windows/Web based applications. Maintained and supported the remaining 12 Clipper applications.
- Developed and supported 20 Access query and reporting databases to provide ad hoc reporting from MDC application data.
- Supported installation, customization, and operation of the HRIS, QuickSell, and Fleetwave commercial software packages.
- Maintained and supported 6 production databases in Oracle containing a total of 4667 tables and occupying approximately 66 gigabytes of disk space.
- Provided technical assistance, formatting, and posting of 15,545 pages on the MDC Intranet including HTML pages, Active Server pages, and PDF pages.

Technical - Operations Unit

- Installed 32 servers Department Wide.
- Installed 3 new local area networks (LAN); Columbia Bottom, Puxico, and ElDorado Springs
- Upgraded 15 local area networks and completed change over from Token Ring to Ethernet topology.
- Replaced 453 PCs with new Windows 2000 computers.
- Processed 13,075 trouble calls through the Help Desk.
- Completed 5,076 maintenance trouble tickets on PCs across the state.
- Supported over 1,555 PCs, 39 LANs and 38 WAN locations across the state.
- Supported 1,550 e-mail users across four post offices statewide.
- Maintained an average 98.9% network availability throughout the year.

Technical – Telecommunications Unit

- Replaced six telephone key systems: Columbia Regional, Rolla, Kirksville, Dalton Range, Neosho and Chillicothe.
- Replaced 282 mobile radios, 65 portable radios, and 2 base stations throughout the state.
- Replaced 58 fixed repeaters in the Southeast, Central and St. Louis regions. Our equipment replacement is resulting in improved mobile and portable radio coverage in areas served by the tower sites.
- Installed seven new (ADD) fixed repeaters in the Central, Kansas City, Southwest, and Ozark regions. These were necessary to provide radio coverage for the "Fire Zone" dispatching system for Forestry Division.
- Issued 4 requests for frequency coordination for new FCC radio station licenses, and 28 requests for license modifications.
- Maintained over 1,600 telephones, 1 PBX System, 67 Electronic Key Systems, numerous FAX machines, and audio visual and public address equipment at 117 locations across Missouri.
- Constructed new base station towers at Kansas City and Columbia regional office and erected a new repeater site at Indian Hills Conservation Area.
- Issued 270 purchase Orders for radio equipment, service parts and tower maintenance.
- Issued 67 purchase orders for telephone equipment and facsimile machines, and 70 service orders for voice and wide area network services.
- Acquired 6 equipment shelters for radio tower sites. These were installed at Powell, Meta, Gipsy, Taum Sauk, High Pointe and Blue Slip.
- We now maintain 89 tower sites, 98 base stations, 168 radio relays, 1,243 mobile radios and 1,078 portable radios.

Realty Services

Realty Services handles the acquisition of all lands and land rights for the Department including trades that would eliminate inholdings, resolve boundary and trespass issues or gain access to remote portions of Department areas. The section handles easement requests, boundary resolutions as well as maintaining records of the Department's real estate inventory, and makes annual PILT payments to 114 Missouri counties.

In-Lieu-of Tax Program

In FY2004 in lieu of tax payments, which included levee and drainage district taxes, totaled \$661,356.60 to 114 counties. The four largest payments were to St. Louis (\$47,761.36), Shannon (\$28,500.96), Mississippi (\$23,701.66) and Holt (\$23,155.77) counties. Since 1980 more than 10.5 million dollars has been returned to Missouri counties under the in lieu of tax program.

Lands purchased or received in trade July 1, 2003 through June 30, 2004:

County	<u>Area</u>	<u>Acres</u>
Boone	Hart Creek C. A.	0.53
Cedar	El Dorado Springs Office	2.70
Chariton	Dalton Bottoms Access	0.40
DeKalb	Pony Express C. A.	40.00
Laclede	Long Ford Access	31.00
Laclede	Mary Lawson C. A.	52.00
Lafayette	Baltimore Bend. C. A.	10.00
Lewis	LaBelle Lake C. A.	334.00
Livingston	Poosey C. A.	71.00
St. Louis	Rockwoods Reservation	37.00
Shannon	Angeline C. A.	0.64
Vernon	Clear Creek C. A.	209.00

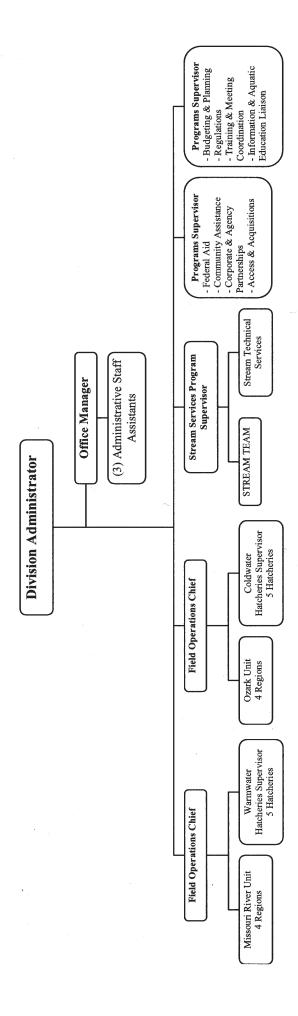
Land donations from July 1, 2003 through June 30, 2004:

<u>County</u>	<u>Area</u>	<u>Acres</u>
Greene	Wildlife Refuge Area	63.00
Jefferson	Hilda J. Young C. A.	5.80
Newton	Wildlife Area	114.00
Platte	Anthony and Beatrice Kendzora C. A.	2.50

Lands traded or sold between July 1, 2003 and June 30, 2004:

<u>County</u>	<u>Area</u>	<u>Acres</u>
Boone	Hart Creek C. A.	0.15
Camden	Larry Gale Access	0.88
Gasconade	Tea Access	0.18
Howell	West Plains Dist. Hdq. (former)	4.11
Macon	Atlanta C. A.	0.80
Platte	Humphrey Access	1.70

DIVISION OF FISHERIES



FISHERIES DIVISION

The Division's mission is "to professionally manage the fish and associated aquatic plants and animals of Missouri for the use and enjoyment of the people."

Missouri has about 1,163,000 surface acres of water comprised of nearly 900 public lakes (24% of the total surface acres), 486 miles of Mississippi River and 553 miles of Missouri River (22%) combined), almost 16,000 miles of other permanent streams (8%), over 39,000 miles of intermittent streams (3%) and about 500,000 private lakes (43%). These waters support rich and diverse aquatic communities that are used, enjoyed and appreciated by millions of people each year. Fishing is one of the most popular and economically important uses of these waters. Each year, Missouri's 1.2 million sport anglers (16 years of age and older) make about 11.8 million fishing trips and spend almost a billion dollars on related goods and services. During 2003, the Department of Conservation sold 1,395,594 resident and nonresident fishing permits and tags of all types to 851,518 people.

To carry out its mission, the Division had fisheries management staff deployed in 8 regions during FY 2004. Management efforts were supported by five coldwater fish hatcheries, five warmwater fish hatcheries, the Stream Unit and central office staff. The Division had 170 permanent and term positions and varying numbers of temporary employees at the end of FY 2004.

During FY 2004, the eight Department regions were staffed with 72 Fisheries Division employees. Most were stationed in the regional offices, but some staff worked out of the California, Camdenton, Chillicothe, Clinton, El Dorado Springs, Hannibal, Hartell Conservation Area, Lebanon, Liberty, Neosho, Sedalia, and Sullivan offices. Fisheries management personnel are responsible for monitoring and maintaining the quality of the aquatic resources, managing the public fisheries resources for quality fishing, providing technical guidance in stream and lake management to private landowners and other public agencies, providing and assisting with public information and education programs, assisting with other Department programs and representing the Division and Department on matters pertaining to the aquatic resources in their region.

The five warmwater hatcheries (Blind Pony, Chesapeake, Hunnewell, Indian Trail and Lost Valley) have 33 employees and are responsible for rearing the fish needed to stock public waters, suitable private lakes, and waters used for special fishing events and aquatic resource education. Their staffs also develop methods of rearing endangered species. The five coldwater hatcheries (Bennett Spring, Maramec Spring, Montauk, Roaring River and Shepherd of the Hills) are staffed by 40 employees and they rear the trout needed to stock public waters. Their staffs are also responsible for stocking and managing the popular Bennett Spring, Maramec Spring, Montauk and Roaring River trout parks.

The Stream Unit (staff in Jefferson City, Sedalia, Columbia, and Kirksville) has 9 employees and is responsible for administering the STREAM TEAM program, working with the Missouri Department of Natural Resources on the Volunteer Water Quality Monitoring Program, providing stream technical services to regional Division and Department staff and coordinating the Department's Streams For The Future Program.

The Division's central office staff directs and administers Division programs, develops and refines regulation proposals, works on the acquisition and development of public fishing and boat access areas, administers the Community Assistance Program and Corporate and Agency Partnership Program, administers Federal Aid grants, coordinates angler recognition programs, develops and revises technical and popular written materials, and provides administrative support for Division and Department staff and programs.

Four broad goals guide the Division. We are striving to:

- Maintain biodiversity and reduce the effects of aquatic nuisance species;
- Provide enjoyable fishing trips;
- Protect aquatic habitat;
- Inform and educate the public about Missouri's aquatic resources.

The Division's FY 2004 activities and accomplishments are summarized below by Department program area.

Public Resources Management

Streams

- Completed six watershed inventory and assessment reports. These have been or will be posted on the Department's internet home page (click on "Missouri's Rivers and Their Watersheds").
- Conducted fish community surveys at 44 sites in six watersheds as part of a watershed or area inventory.
- Conducted fish flesh or mussel contaminant sampling at one site.
- Conducted fish community surveys at 94 sites in 12 watersheds as part of watershed management plan implementation or a resource assessment and monitoring program.
- Conducted stream/riparian habitat surveys at 94 sites in 12 watersheds as part of watershed management plan implementation or a resource assessment and monitoring program.
- Conducted routine or standard surveys on stream areas involving
 - -Fish population surveys of 46 areas, and
 - —Habitat surveys of 17 areas.
- Performed management evaluations on three stream areas involving
 - -Fish population surveys of two areas,
 - -Angler use survey of one area, and
 - -Habitat survey of one area.
- Installed habitat improvement projects at five stream areas.
- Maintained habitat improvement projects at two stream areas.
- Managed the fisheries of Missouri's four trout parks, stocking 903,854 rainbow trout to provide quality fishing for 415,363 fishing trips during calendar year 2003.
- Managed 40 stream special management areas for quality trout, smallmouth bass, largemouth bass, rock bass and walleye fishing through the use of special harvest regulations, fish stocking and habitat improvement.
- Stocked 17 stream areas with the following fish produced by Department hatcheries:

<u>SPECIES</u>	<u>NUMBER</u>
Brown trout	21,186
Rainbow trout	46,807
Walleye	<u>751,323</u>
TOTAL	819,316

Obtained from other state and federal hatcheries:

<u>SPECIES</u>	<u>NUMBER</u>
Pallid sturgeon	3,604
Lake sturgeon	<u>7,700</u>
TOTAL	11,304

- Continued recovery efforts for the lake sturgeon, pallid sturgeon, Niangua darter, Arkansas darter, Topeka shiner and Ozark cavefish.
- Completed the third year of sampling on the Missouri and Mississippi rivers for the Sturgeon Monitoring Project, a 10-year statewide study.
- Completed Community Assistance Program (CAP) agreements with the City of Lexington for the renovation of Riverfront Park Access on the Missouri River and with Pemiscot County for renovation of Triangle Boat Club Access on the Mississippi River.
- Under a CAP agreement, improved angler and boater access on the Missouri by reimbursing the Kansas City Board of Parks and Recreation \$237,450 (48% of total project costs) for the renovation of Kansas City Riverfront Park Access. The Department's share of the project costs was funded through the Federal Aid in Sport Fish Restoration Program. We also reimbursed the City of New Haven for expanding the parking lot at New Haven Access, another area cooperatively managed under a CAP agreement.
- Assisted Cooper's Landing Marina on the Missouri River in Boone County with improvements of its transient boater facilities through the use of federal Boating Infrastructure Grant Program funds.
- Conducted "kids fishing days" at each of the four trout parks where 3,762 anglers age 15 and under benefited from heavy stocking, "kids only" zones, free bait, loaner tackle and adult assistance.
- Completed "A Plan for Missouri Trout Fishing" and conducted a comprehensive review of Missouri's trout program which included improvements needed in hatcheries, changes in trout management and simplified trout fishing regulations.
- Completed "Managing Missouri's Catfish"—a statewide plan for improving the quality of catfish angling in Missouri's streams, large rivers and reservoirs.
- Completed a biological monitoring project for the Fishing River watershed to determine the effects of urbanization in the watershed and identify ways to reduce degradation of fisheries and aquatic habitat.

Lakes

- Managed 890 public lakes totaling 277,425 acres of water to provide quality fishing and other compatible outdoor recreational activities (includes Department lakes and ponds; U.S. Army Corps of Engineers impoundments; public fishing lakes administered by the Missouri Department of Natural Resources, U.S. Fish and Wildlife Service, U.S. Army, Mark Twain National Forest and several utility companies; and other public lakes under CAP or Corporate and Agency Partnership Program agreements).
- Developed six new lake management plans.
- Conducted routine or standard surveys on public lakes, involving—
 - Fish population surveys of 196 areas,
 - -Angler use surveys of five areas, and
 - -Habitat surveys of 21 areas.
- Performed management evaluations on 10 public lakes, involving—
 - Fish population surveys of eight areas and
 - -Angler use surveys of four areas.
- Conducted fish flesh contaminant sampling at 3 public lakes.
- Installed habitat improvement projects at 61 public lakes.
- Maintained habitat improvement projects at 97 public lakes.

• Stocked 294 public lakes with the following fish:

Produced by Department hatcheries:

Produced by Departing	ent natcheries:	
	<u>SPECIES</u>	<u>NUMBER</u>
	Black Crappie	24,500
	Bluegill	30,897
	Brown trout	10,835
	Channel catfish	265,939
	Fathead minnow	290,500
	Hybrid striped bass	3,766
	Hybrid sunfish	2,000
	Largemouth bass	23,023
	Muskellunge	4,000
	Rainbow trout	497,382
	Redear sunfish	35,516
	Walleye	1,396,299
	Flathead catfish	5,300
	Paddlefish	35,957
	TOTAL	2,625,914
Purchased from comm	ercial sources:	
	Channel catfish	2,150
	Grass carp	18
	Blue catfish	3,312
	Rainbow trout	3,281
	TOTAL	8,761
Obtained from other st	tate and federal hatcheries:	
	Rainbow trout	241,599
	Channel catfish	
	TOTAL	251,599

- Established new winter trout fisheries at Cosmo-Bethel Lake in Columbia and Rotary Lake in Jackson and made arrangements with Jefferson City to add McKay Park Lake to the program in November 2004.
- Began renovation of Blind Pony Hatchery.
- Enhanced habitat in Lake of the Ozarks through placement of 42 large brushpiles in the Niangua
- In cooperation with the U. S. Army Corps of Engineers and local sponsors, disabled-accessible courtesy docks were constructed and placed at various access sites on Norfork Lake, Bull Shoals Lake and Table Rock Lake.
- Completed Community Assistance Program (CAP) agreements with Macon County and the cities of St. Charles, Jennings and Marceline for the cooperative development and management of four lakes ranging in size from 1 to 62 acres.
- Under a CAP agreement, improved angler and boater access on Route J Reservoir by reimbursing Monroe City \$80,000 (96% of total project costs) for the facility renovation and construction. The Federal Aid in Sport Fish Restoration Program funded about 75% of the Department's project costs.

- Developed and implemented the Dam Safety Inspection Grant Program to provide CAP partners (26 eligible partners with 30 dams) with one-time grants of up to \$2,500 to reimburse their costs for hiring engineers to conduct the inspections needed to obtain Missouri Department of Natural Resources (DNR) dam safety permits. This was an interim program to assist our partners while the DNR Dam Safety Program was underfunded and could not provide dam inspection services. We received and approved 15 grant applications, and eight grants totaling \$18,740.75 were provided by the time our program ended on August 31, 2004.
- Assisted Kings River Marina and State Park Marina at Table Rock Lake with the installation and improvement of boat pumpout systems through the use federal Clean Vessel Act funds.

Technical Guidance to Other Public Agencies

- Provided 957 environmental reviews of project proposals and permit applications by federal, state and private entities, and provided input on environmental regulations and enforcement policies as requested.
- Investigated 85 fish kill and pollution incidents on public waters, and provided the results to the Missouri Department of Natural Resources.
- Reported 50 apparent violations of state and federal environmental regulations to the appropriate agencies.
- Responded to 462 requests for technical information and guidance to federal, state and local entities that manage public lands, waters and facilities that involve aquatic resources and public fishing.

Landowner Services

Streams

- Responded to 733 requests for watershed, floodplain, riparian corridor and stream management information and technical assistance.
- Conducted 364 on-site stream visits.
- Prepared 108 detailed recommendation letters or stream management plans.
- Installed 17 Landowner Cooperative Projects.
- Worked with other landowner service agencies on 47 stream or watershed restoration projects (EARTH, SALT, 319, PL566, RC&D and other projects focused on private landowners and communities).
- Developed 2 new stream demonstration areas on private property and performed maintenance on 6 existing areas.
- Conducted 12 stream management workshops with a total attendance of 223 private landowners.
- Associated with the above work, 10 landowners installed stream/watershed restoration projects.
- In nearly every region, fisheries biologists participated in a variety of agriculture field days, farm tours, grazing schools and watershed conferences sponsored by state and federal landowner service agencies, agricultural organizations or landowner watershed committees. During these events, biologists worked with cooperating landowners to demonstrate watershed and stream management practices, such as: riparian area fencing (cattle exclusion), alternative watering systems (alternatives to having cattle in the stream), riparian area tree planting, Conservation Reserve Program incentives, stream bank stabilization, rotational grazing systems, stream crossing construction and grade control structures. Biologists also attended many county Soil and Water Conservation District (SWCD) board meetings, annual banquets, watershed alliance/committee meetings and watershed project kick-off dinners.
- Fisheries biologists continued to work with landowners on a wide variety of stream, riparian corridor and watershed restoration projects that made use of cost-share incentive monies provided through NRCS programs (EQIP, WHIP, CRP) and grants provided by the National Fish and Wildlife Foundation and Stream Stewardship Trust Fund (MO Conservation Heritage Foundation).

• Field staff attended workshops on stream bank stabilization (US Army Corps of Engineers), low-head dam removal (University of Missouri-Rolla) and groundwater (Fisheries Division Streams Unit).

Private Lakes

- Responded to 6,234 requests for lake management information and technical assistance.
- Conducted 934 on-site private lake visits, which included:
 - 291 fish population surveys,
 - 327 stocking inspections, and
 - 48 fish kill investigations.
- Prepared 185 recommendation letters or lake management plans.
- Conducted 31 pond management workshops with a total attendance of 928 private landowners.
- Stocked 480 private impoundments (847 acres) with fingerling largemouth bass, bluegill and channel catfish.
- Produced and distributed two new AQUAGUIDEs ("Catching Grass Carp"; "Care of a New Pond and its Watershed")
- Appropriate field staff received training and were certified or recertified as pesticide applicators.
- Among pond workshops conducted was a workshop for 20 members of the Missouri Parks and Recreation Association. These are people responsible for managing local parks.
- Northeast Region staff piloted a pond plant cost-share program to assist landowners with the establishment of aquatic plants that provide good fish habitat and shoreline protection without becoming a nuisance.
- Central Region staff put together an informative and popular display of live aquatic plants for Columbia's Day With Wildlife.

General

- The Department's INTERNET home page (www.missouriconservation.org) was periodically updated to include a number of our technical publications. Currently, 26 impoundment management publications and 11 stream, riparian corridor and watershed management publications are available on-line.
- Fisheries staff from several regions attended the Agricultural Ecosystems Issues Workshop in Chillicothe. The purpose of the workshop was to identify issues and information needs pertaining to the management of fish, forest and wildlife resources in portions of the state where agriculture is the predominant land use.

Regulation and Enforcement

• Assisted with enforcement activities by riding with Conservation Agents, operating radios, working at check stations during firearms deer season, and assisting with Chronic Wasting Disease monitoring efforts.

Information and Education

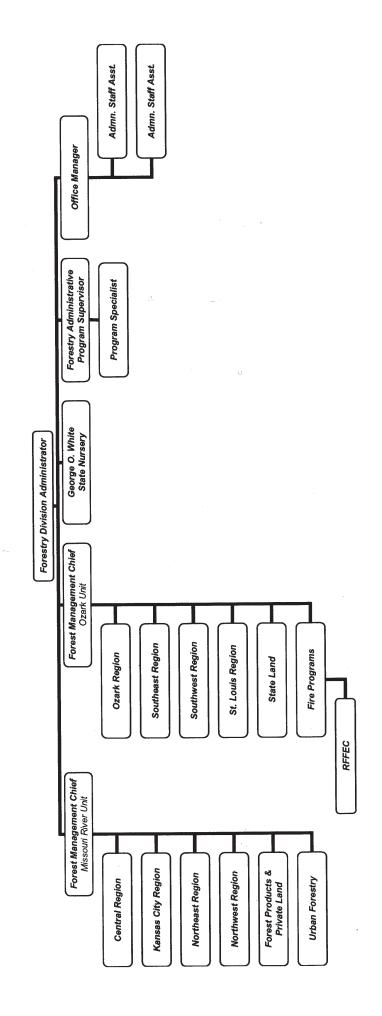
- Administered the popular and growing STREAM TEAM program, which now has 2,578 teams with approximately 51,560 members.
- Worked closely with the Missouri Department of Natural Resources in the administration of the Volunteer Water Quality Monitoring Program and conducted training for 367 volunteers.
- Distributed 305,375 Stash Your Trash bags.
- Provided information and education about fishing, fisheries management, stream and watershed management aquatic ecology and a wide variety of related topics through presentations, demonstrations or manned displays for at least 234 meetings, field days, open houses or other conservation-focused special events attended by 6,186 people.

- Made at least 303 classroom presentations, assembly presentations and field day demonstrations on a wide variety of aquatic topics to 15,038 students.
- Staffed booths and provided displays or demonstrations for at least 76 fairs, sports shows, festivals and other special events attended by the public.
- Conducted or participated in at least 20 courses, workshops or classes attended by 687 teachers.
- Located ponds for school class fishing field trips coordinated by the Outreach and Education Division and, if needed, stocked them with hybrid sunfish and channel catfish purchased from commercial sources.
- Managed ponds for the St. Louis, Springfield and Kansas City urban angling clinics conducted by Outreach and Education Division staff.
- Sponsored, co-sponsored or otherwise assisted with at least 267 kids fishing clinics, family fishing fairs and other special fishing events attended by 17,248 people.
- Produced and stocked 17,036 hybrid sunfish, 8,022 channel catfish and 850 rainbow trout in water areas used for school class fishing field trips, urban angling clinics, kids fishing clinics and other special fishing events.
- Initiated or responded to at least 399 media contacts.
- Maintained an inventory of about 140 printed brochures and leaflets concerning fish, places to fish, fishing techniques, pond and stream management techniques, regulations and Division programs, and distributed copies to the public and Department staff as requested.
- Produced over 35,000 copies of "Missouri Fishing Prospects", a 40-page report based on the latest professional fisheries information for some of our more popular lakes and streams.
- Compiled the Weekly Fishing Report from April through September and distributed it electronically to 5,091 media outlets, reporters and individuals.
- Administered the Master Angler Program and awarded 349 certificates to anglers for their outstanding catches.
- Administered the State Record Fish Program and recognized eight new state records during 2003 fishing seasons.
- Recognized approximately 2,500 anglers for catching their first fish with a First Fish certificate.
- The Show-Me Missouri Fish-Mobile Aquarium Program reached an estimated 819,045 Missourians in seven of our eight regions. The mobile aquarium was taken to 19 events and was displayed for a total of 102 days. Approximately 408 demonstrations were given on topics ranging from basic fishing to targeting specific species and several educational games were added for use with school groups. Additional educational seminars were given on topics ranging from endangered species to habitat loss. The mobile aquarium was displayed at sport shows, an agriculture exposition, community festivals, formal education events, at a Conservation Nature Center, at the Missouri State Fair and two regional fairs and in association with other Department fishing related events.
- Co-hosted eight Missouri River Relief litter pickups from the confluence to St. Joseph, bringing educational events, river cleanups and environmental festivals to several thousand Missourians. Nationally-known river steward Chad Pegracke and his crew, Stream Teams, agency staff and volunteers worked side by side to remove tons of trash from the Missouri River.
- Provided tours to 32,683 visitors at Lost Valley Hatchery and entertained 5,154 young anglers who used the kid's fishing pond. Over 278 kids caught their first fish while at the hatchery.

General Agency Operations

 Prepared the annual grant agreements, annual performance reports and other project documentation needed to obtain Federal Aid reimbursement (~\$6.5 million annually from the Sport Fish Restoration Program) for a broad range of fisheries management, research, fishing and motorboat access acquisition and development, and motor boat access maintenance activities.

Forestry Division Organizational Chart



FORESTRY DIVISION

Forestry Division's Mission: To protect and manage the forests of the state for long term resource sustainability and for the use and enjoyment of the people.

To contribute and work with all Divisions toward the MDC Mission

Forests cover approximately 15 million acres of Missouri's total land area of 44 million acres. Well managed forests are a valuable asset to any state and Missouri is no exception. The Forestry Division is responsible for the management and protection of the forest resource of the state.

The forests of Missouri produce a wide range of benefits. Forests provide protection for watersheds and prevent soil erosion, provide scenic beauty, vital wildlife habitat, and opportunities for outdoor recreation. Much of the state's tourism is centered around the forests of the Ozarks. Wood products are another important benefit of the forest. In some parts of the state, wood industries are a key element in the local economy.

Managing and protecting the forest resources for all these nonmarketable benefits as well as for a continued flow of materials to our wood industries is the primary objective of the Forestry Division. The following report outlines our efforts over the past year to produce the most public good while providing for the sustainability of Missouri's forest resources.

Private Landowner Assistance Program

Forestry Division regional field staff throughout the state provides technical advice and assistance to private landowners that includes monitoring of forest health, tree planting recommendations, advice and recommendations for forest improvement, forest products marketing and utilization, and overall management of the total forest related resources for its many benefits. In addition to assisting landowners, forest products operators and industries, foresters also give educational and informational presentations to various groups, organizations, and institutions. They conduct field trips, and provide demonstration tours for a wide variety of interest groups and organizations. Forestry Division also provides technical forestry guidance for related agencies: Resource Conservation and Development projects, small watersheds (Natural Resources Conservation Service), forestry conservation practices (Farm Service Agency), industrial development (Missouri Division of Commerce and Industrial Development) and tree farms (American Forest Foundation).

The following is a brief summary of our private landowner assistance accomplishments for FY04 (July 1, 2003-June 30, 2004):

1. Private Landowner Contacts		1,419
2. Forest Stewardship plans prepared	Number	160
	Acres	28,749
3. Timber stand improvement—acres		2,108
4. Tree planting and seeding—acres		1,325
5. Forestry tours and workshops		30

Federal Cost-Share Assistance Programs

Forestry Division provides assistance to landowners by working closely with the federal government in delivery of a wide variety of cooperative forest management programs. Federal cost-share programs such as Environmental Quality Incentive Program (EQIP), Wildlife Habitat Incentive Program (WHIP), and the Forest Landowner Enhancement Program (FLEP) that are a result of the 2002 Farm Bill offer great opportunities for forest landowners. Field foresters work closely with federal natural

resource professionals to implement these programs. Private land conservationists and farm bill programs provide private landowners with the opportunity to defray certain costs associated with practices such as tree planting and tree planting, timber stand improvement, wildlife and fish habitat enhancement, agroforestry, critical area protection, and riparian habitat improvement and protection.

Forest Stewardship Program

Because of its emphasis on the management of all naturally occurring resources, the Forest Stewardship Program has become the standard for the management of private nonindustrial forest land. Implementation of this program and the stewardship philosophy of land management has insured that landowners are receiving comprehensive resource management assistance which is consistent with their individual goals and objectives. The Forest Stewardship Program requires that natural resource managers focus their attention on all naturally occurring resources. Management recommendations must take into consideration each of these naturally occurring resources as well as what the landowners goals are for their property. This insures that all resources are considered equally and one is not emphasized at the detriment of another. The Missouri Forest Stewardship Committee, which consists of representatives from private landowner organizations, forest industry, consulting forester groups, public agencies and other interested citizens guides and directs the activities of the Forest Stewardship Program. The program has enabled Forestry Division to form partnerships with a wide range of resource professionals. Wildlife biologists, fisheries biologists, natural history specialists, Natural Resource Conservation Service personnel, and a variety of professional resource management consultants all participate in delivery of the Forest Stewardship Program. The number of acres brought under stewardship management has steadily increased since its inception in 1990. This past year a total of 160 Landowner Forest Stewardship Plans were developed bringing an additional 28,749 acres under total resource management.

Forest Crop Land

The State Forestry Law as passed by the Missouri Legislature in 1946 and amended in 1981 provides that privately owned land may be classified as Forest Crop Land for a period of 25 years. The assessed valuation for tax purposes is \$1.00 per acre for land classified prior to 1974, and \$3.00 per acre for land classified subsequently. The land must be supporting a growth of timber at least 20 acres in size, and cannot be valued at more the \$400 per acre in order to be eligible. To make up for a counties loss of revenue, the Conservation Department makes annual reimbursement to the counties in the form of a grant in lieu of taxes at the rate of \$0.50 for each acre classified as privately owner Forest Crop Land, and counties are paid \$0.75 per acre each year for state owned lands acquired prior to July 1, 1977.

Although not as popular as it once was applications continue to be received from landowners who are interested in having their land classified, particularly since land that was previously classified and has expired may be considered again for classification.

In the fall of 1980, a Constitutional Amendment was approved by the voters of Missouri to give the Department of Conservation the authority to make in lieu of real estate tax payments to counties for all land that was purchased after July 1977. The amendment also provided authority for the Department of Conservation to make the Forest Crop Land grants in lieu of taxes to counties from the Conservation Fund. The following table reflects January 2004 acreage for privately owned and state owned Forest Crop Land for which the grant in lieu of taxes was made in November 2004. The state owned acreage is land owned by the Department prior to July 1977, or land on which the previous owner was paying no tax.

Privately and State Owned Forest Crop Land

	Acres	Acres		Total
	Privately	State	Total	Amount
County	<u>Owned</u>	<u>Owned</u>	<u>Acres</u>	<u>Paid</u>
Adair		2,607.61	2,607.61	1,955.70
Andrew		1,506.99	1,506.99	1,130.24
Atchison	120.90	1,500.99	1,621.89	1,186.19
Audrain		559.37	559.37	419.53
Barry		350.14	350.14	262.60
Barton		85.00	85.00	63.75
Bates		298.60	298.60	223.95
Benton		2,038.00	2,038.00	1,528.50
Bollinger	1,673.80	2,197.41	3,871.21	2,484.96
Boone		567.51	567.51	425.63
Buchanan	155.00	2,438.34	2,593.34	1,906.25
Butler	69.01	5,536.44	5,605.45	4,186.83
Caldwell		1,024.00	1,024.00	768.00
Callaway	475.50	5,627.35	6,102.85	4,458.26
Camden	427.28	185.00	612.28	352.39
Cape Girardeau	77.49	350.66	428.15	301.73
Carroll		248.00	248.00	186.00
Carter	4,351.59	22,904.38	27,255.97	19,354.08
Cedar	74.00	160.00	234.00	157.00
Chariton		92.60	92.60	69.45
Christian		20.00	20.00	15.00
Clark	246.50	356.34	602.84	390.50
Cole		468.56	468.56	351.42
Cooper		989.14	989.14	741.85
Crawford	602.85	9,974.78	10,577.63	7,782.50
Dallas		1,461.35	1,461.35	1,096.01
Daviess		865.97	865.97	649.47
DeKalb		1,861.56	1,861.56	1,396.17
Dent	3,953.11	14,467.23	18,420.34	12,826.98
Douglas	440.00	307.36	747.36	450.52
Dunklin		982.35	982.35	736.76
Franklin	1,007.98	4,081.27	5,089.25	3,564.94
Gasconade	287.00	21.87	308.87	159.90
Gentry		70.18	70.18	52.63
Greene		7.50	7.50	5.62
Harrison	20.00	1,463.00	1,483.00	1,107.25
Henry		1,692.58	1,692.58	1,269.43
Hickory		1.70	1.70	1.27
Holt		433.41	433.41	325.05
Howard	500.28	1,542.69	2,042.97	1,407.15
Howell	1,916.00	317.14	2,233.14	1,195.86
Iron	2,756.50	3,847.61	6,604.11	4,263.96
Jackson		2,156.38	2,156.38	1,617.29
Jasper		9.29	9.29	6.96
Jefferson	1,516.00	206.81	1,722.81	913.10
Johnson		3,370.00	3,370.00	2,527.50
Knox	58.00	748.00	806.00	590.00
Laclede		1,470.16	1,470.16	1,102.62

	Acres	Acres		Total
	Privately	State	Total	Amount
County	<u>Owned</u>	<u>Owned</u>	Acres	<u>Paid</u>
Lawrence		118.89	118.89	89.16
Lewis		4,416.16	4,416.16	3,312.12
Lincoln		2,158.19	2,158.19	1,618.64
Linn	38.00	3,403.08	3,441.08	2,571.31
Livingston	65.30	2,440.10	2,505.40	1,862.72
McDonald		2,109.90	2,109.90	1,582.42
Macon	42.00	2,290.62	2,332.62	1,738.97
Madison	8,711.56	4.00	8,715.56	4,358.78
Maries	1,232.90	306.39	1,539.29	846.24
Marion		295.60	295.60	221.70
Mercer		946.65	946.65	709.98
Miller	80.00	126.99	206.99	135.24
Mississippi		163.88	163.88	122.91
Moniteau		157.00	157.00	117.75
Monroe		70.00	70.00	52.50
Montgomery		1,636.00	1,636.00	1,227.00
Morgan	1,616.62	517.38	2,134.00	1,196.35
New Madrid		8.19	8.19	6.14
Newton		2,205.86	2,205.86	1,654.39
Nodaway		326.36	326.36	244.77
Oregon	643.34	8.00	651.34	327.67
Osage	188.74	50.84	239.58	132.50
Ozark	2,936.74	6,739.64	9,676.38	6,523.10
Pemiscot	,	268.18	268.18	201.13
Perry	920.00	350.02	1,270.02	722.51
Pettis		812.56	812.56	609.42
Phelps	2,976.96	1,488.48	5,415.61	3,317.47
Pike	1,225.00	6,962.03	8,187.03	5,834.02
Platte	185.00	54.64	239.64	133.48
Polk		1,444.94	1,444.94	1,083.70
Pulaski		140.94	140.94	105.70
Putnam	113.00		113.00	56.50
Ralls		726.47	726.47	544.85
Randolph	45.00	2,125.85	2,170.85	1,616.88
Ray		49.85	49.85	37.38
Reynolds	4,182.51	36,335.34	40,517.85	29,342.76
Ripley	259.00	5,728.84	5,987.84	4,426.13
St. Charles		14,465.19	14,465.19	10,848.89
St. Clair		5,573.52	5,573.52	4,180.14
St. Francois	1,421.06	228.58	1,649.64	881.96
Ste. Geneviev	e 4,445.54		4,445.54	2,222.77
St. Louis	,	3,241.29	3,241.29	2,430.97
Saline		1,981.68	1,981.68	1,486.26
Scotland		59.45	59.45	44.59
Scott		183.90	183.90	137.92
Shannon	12,113.29	58,407.50	70,520.79	49,862.27
Shelby	,	1,344.98	1,344.98	1,008.73
Stoddard		2,754.33	2,754.33	2,065.74
Stone		166.55	166.55	124.91
Sullivan		87.00	87.00	65.25
Jamvan		07.00	07.00	03.23

	Acres	Acres		Total
	Privately	State	Total	Amount
County	<u>Owned</u>	<u>Owned</u>	<u>Acres</u>	<u>Paid</u>
Taney		184.38	184.38	138.28
Texas	19,210.90	900.44	20,111.34	10,280.78
Vernon		4,824.57	4,824.57	3,618.42
Warren		4,380.52	4,380.52	3,285.39
Washington	9,132.04	2,733.00	11,865.04	6,615.77
Wayne	7,772.36	16,044.60	23,816.96	15,919.63
Webster	80.00	1,081.76	1,161.76	851.32
Worth		58.61	58.61	43.95
Wright	411.00	5.30	416.30	209.47
TOTALS	100,776.65	310,117.80	410,894.45	\$282,976.45

Logger Training Activities

The Department provided a grant to the Missouri Forest Products Association in the amount of \$80,000 to continue the Missouri Professional Timber Harvester program. This program provides training to Missouri loggers in best management practices, forest and wildlife management, tree felling techniques and safety. Approximately 350 loggers have been trained. Funding is now being used to offer continuing education courses to previously trained loggers. A new session started in 2000 that was developed specifically for logging crew supervisors. Participants receive training in first aid/CPR, advanced forest and wildlife management techniques, business management and best management practices. To date, approximately 150 logging crew supervisors have been certified. This training is required for companies harvesting timber on Missouri Department of Conservation owned lands.

Rural Development Through Forestry Activities

Rural Development Through Forestry (RDTF) is a U.S. Forest Service, State and Private Forestry program that provides funds to the states for implementing projects to benefit wood industry dependent communities. Funds coming to Missouri are currently being used to assist in the implementation and monitoring of Best Management Practice use in Missouri.

State Forest Land Management 2004

The Forestry Division is responsible for managing approximately 438,700 acres, including 6,900 acres of leased land. Conservation area management plans were completed in 11,361 acres on four areas including Wilbur Allen Memorial, Dean Davis, Fourche Creek and Lead Mine Conservation Areas. Forest habitat management is accomplished through sale of forest products to companies who have harvested trees from approximately 5,010 acres, resulting in revenue of \$1,537,240 from the sale of an estimated 11,754,390 boardfeet of sawtimber. Management practices applied on glades, savannas, old fields and crop fields provide additional types of habitat approximately 14,793 acres of land. Forest habitat work accomplished by the eight forestry regions includes:

Forest inventory for management 36,544	acres
Tree planting and direct seeding 725	acres
Plantation management 293	acres
Regeneration harvests 1,183	acres
Shelterwood harvests 520	acres
Unevenage harvests 1,691	acres
Intermediate harvest 1,616	acres
Pre-commercial thinning 2,608	acres
Fuel wood harvests 131	acres
Site preparation for natural or artificial regeneration 593	acres
Glade management 1,704	acres
Old field and grassland management 8,402	acres
Savanna management 3,976	acres
Crop field management 711	acres

Geographic Information Technologies (GIS and GPS)

Forestry Division continues to integrate GIS and related technologies into the Division's management and planning efforts. All of the Division's professional foresters have ready access to GIS and GPS technologies. Enhancing the skills of Division staff in the application of GIS to their daily activities is a continuing priority. The forest inventory spatial database of MDC managed lands continues to be built as field inventories are completed. An additional 22,489 acres was added to the database in FY '04.

Over the past year three major analysis projects have been conducted: the Forest Legacy program Assessment of Need, Forest Stewardship Program potential benefit, and Forestry Division long range planning.

Field staff are regularly using GIS and related technologies to help in their management activities. Examples include mapping and analyzing trends in fire occurrence, use in private land assistance programs, and mapping roads, natural features, management unit boundaries and horse trails on state lands.

George O. White State Forest Nursery

During the 2003-2004 tree ordering season, 6.3 million seedlings were distributed for planting to approximately 12,730 individual landowners. The tree seedlings and shrubs were offered for reforestation, wildlife food and cover, riparian corridor restoration, windbreaks, and many other uses. The number of seedlings distributed was an increase of over 770,000 seedlings from 2002-2003. This was an increase of 14 percent in seedlings distributed. There was a decrease of about 3.5 percent in the number of seedling orders over last year.

Income generated by tree sales was \$1,340,543.58. This was a 17 percent increase in income over the 2002-2003 season. The total income generated was discounted by \$28,097.92 from the Heritage Card discount.

During the 2003-2004 season we added two new species, water tupelo and button bush. Both species are used in wetland restoration and both sold out. We continued to have 5 special bundles; Conservation, Wildlife Cover, Quail Cover, Extra Large Nut Tree and Walnut Variety bundles. By seasons end we had sold out of all 5 bundles. We offered for sale a total of 72 species. We sold out of 35 of these species.

We continued to offer extra large northern red oak and shumard oak seedlings and the extra large nut tree bundle. Available numbers were up from last year on all three offerings and we still sold out of all three. In an effort to have more large trees available we dropped the minimum height from 36" and up in height to 30" and up. The extra large nut tree bundle was 30" and up walnut and 24" and up pecan.

Free seedlings were distributed at no cost for the following uses:

- A. Missouri Department of Conservation (MDC) land plantings for Forestry, Wildlife and erosion control.
- B. MDC sponsored demonstration plantings on both public and private lands.
- C. Youth groups, which included Scouts, FFA, 4H, schools and others.
- D. Arbor Day activities where all Missouri 4th graders receive a free seedling.
- E. Missouri Department of Transportation roadside plantings.

All Missouri landowners and residents are eligible to purchase seedlings from the State Forest Nursery. Order forms are available by mid-November and can be obtained from the Nursery, all MDC offices, and University of Missouri Extension offices. Our seedling order form is also now available via the Internet. The order form can be down loaded and printed or customers can place their order directly over the Internet. Orders are accepted from the public until May 1 of each year. Seedlings are shipped from February through May by the US Post Office or United Parcel Service.

Wildfire Prevention and Control

2004 STATE WIDE FIRES BY CAUSE

Cause	<u>Number</u>	Acres	% Number	% Acres
Lightning	17	98	1.0%	0.3%
Campfire	11	45	0.05%	0.1%
Smoking	52	52	2.1%	0.2%
Debris	1357	16,857	58.0%	52.0%
Arson	231	8,258	9.8%	26.0%
Equip	109	624	5.0%	2.0%
Railroad	11	29	.05%	0.2%
Children	16	63	1.0%	0.2%
Misc	<u>552</u>	<u>6,132</u>	<u>23.0%</u>	<u>19.0%</u>
TOTAL	2,356	32,128	100%	100%

Due to regular precipitation events, Missouri enjoyed a relatively light spring fire season for the third year in a row. A few high hazard days were experienced but local forces handled the fire occurrence without movement of resources around the state. Rural fire departments continue to be the front line of initial attack in most parts of the state except for the most undeveloped portions of the Ozarks. MDC supported fire departments with additional personnel and dozers when they were requested. A total of 2,356 wildfires were reported that burned 32,128 acres of Missouri's fields and forests.

Debris burning (fires resulting from land clearing, burning trash, range, stubble, right-of-way, logging slash, etc.) is the major cause of woods and grass fires in Missouri. Incendiary fires (fires willfully set by anyone on property not owned by him, and without the consent of the owner) continue to rank second in the number of wildfires that occur each year.

Forestry Division works very closely with volunteer fire departments and federal partners to assist with fire suppression activities. Currently, 838 rural fire departments have mutual aide agreements with Forestry Division to provide assistance in wildfire protection and a Cooperative Agreement with the Mark Twain National Forest is renewed annually.

Volunteer Fire Assistance (VFA)

The purpose of the VFA program is to provide financial, technical and related assistance to State Foresters for organizing, training and equipping rural fire departments. State Foresters pass this funding through to local fire departments and fire training academies. This program authorizes expenditure of federal funding to prevent and suppress rural fires and enhancing protection capabilities by assisting rural communities with training, equipping and organizing fire service. Fire departments in communities with populations of 10,000 or less are eligible for this grant. In addition, grant eligibility is limited to those rural fie departments that also maintain Mutual Aid Agreements with the state forestry agencies.

This past fiscal year in Missouri, VFA provided matching funds to rural volunteer fire departments to assist them in becoming a more efficient initial attack fire suppression force through equipment purchases. The core funding available when the grants were approved was \$116,858. Title IV, National Fire Plan funds available totaled \$135,159. The Missouri Department of Conservation made \$125,000 available in state VFA grant funds. Priority was given to grant requests for PPE for wildland fire suppression, wildfire suppression equipment, and communications equipment. However, some structural PPE and suppression equipment was also funded as well as one basic structural fire training session. Priority was also given to the fire departments most in need of financial assistance. Need was based on the departments budget for the current year. The grant applications requested a copy of the fire departments budget be included in the application package that was submitted to the Fire Supervisor's office. Grant applications were received from 308 fire departments. Approvals were made for 188 grants. This amounts to a 61% approval rate.

FFY03 VFA Matching Fund Program

SOURCE OF FUNDS	NO. OF GRANTS	AMOUNT	VFD MATCH	VFD PERCENT
Federal Title II	59	\$117,541	\$122,842	51 %
Federal Title IV	79	\$135,565	\$152,882	53 %
Missouri State Funds	<u>50</u>	\$127,882	\$160,292	56 %
TOTALS	188	\$380,988	\$436,016	
TOTAL EXPENDITURE: \$81	7.004			

Federal Excess Personnel Property

Screeners froze equipment with an acquisition value of \$5,515,020.41. Almost \$3,000,000 of this total was in various types of vehicles, primarily trucks.

A great deal of effort went into returning unusable FEPP to the Rural Fire Fighting Equipment Center (RFFEC) for disposal at future sales. A large GSA auction was held in April to dispose of unusable property. This sale brought in \$107,000 on FEPP items and an additional \$10,000.00 on other federal property entered in the sale by GSA. Another auction is scheduled for the fall of 2004.

Wildfire Prevention

Fire prevention activities increased this year, perhaps due to having some available time since fire season activities were off again. Regional personnel provided the fire prevention message to a large number of elementary schools. Smokey Bear visits are the common avenue for presenting the fire prevention message to schools. Smokey also participated in a number of parades, safety fairs and other special events around the state throughout the year. A total of 106 fire prevention events took place with an attendance of 22,732 individuals. Common Services funds in the amount of \$29,930 were used to purchase prevention materials from the Grand Rapids fire cache. An additional \$3,000 was spent on prevention materials available through NASF.

Fire Training

MDC staff continued training rural fire department and MDC personnel to both NWCG and state agency standards. Demand by fire departments for basic wildland fire training was not as strong this year despite evidence in the Fire Department Survey completed during the past year that such training is a fairly strong need. Where time or opportunity does not allow rural fire departments to receive NWCG training the MDC Level 1 fire training is still the alternative and makes up the a big portion of all training efforts. This six hour course in basic fire fighting is required of all MDC personnel before participation on wildfires or prescribed burns. It is available to MDC Forestry Technicians in a Power Point slide show that was been distributed around the state last year. A total of 49 non-NWCG basic fire training sessions were held with an attendance of 388 students.

MDC provided several instructors to the Midwest Wildfire Training Academy (MWTA) with there time being counted against the Big Rivers Compact Grants. MDC once again provide logistical support at the Academy. Their time was also claimed by the Compact.

A number of NWCG courses were presented by MDC personnel outside of the MWTA.

NWCG Courses Presented

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$130/190 (two sessions) . . . . . . . . . . . . . . 78 students
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Annual refresher training was held across the state in 11 locations. Total attendance for these refreshers was approximately 200.

Out-of-State Mobilizations

Missouri State participated in what was a very low level of out-of-state mobilization during the summer of 2004. This included a good representation of personnel from MDC, rural fire departments as well as a few private individuals. A total of 200 red cards were issued for MO-MOS resources out of the 410 individuals that are currently in the MDC IQS. This year Missouri State took the sponsorship of the St. Louis Americorps crew that had previously been carded under the Mark Twain NF as well as red carding some Iowa ADs. A few individuals move up with their qualifications as several task books were completed.

Fire Weather

MDC added a RAWS to the network of 13 FTS RAWS already in place. This past year a depot contract with BLM through the US Forest Service at NIFC was renew for weather station maintenance.

MDC nearly completed the work of upgrading 8 weather stations, funded by a Hazard Mitigation Grant. Software for office PC connections will also be upgraded. The end result will be greater fire weather information access by all the fire services across the state.

MDC once again contracted for fire weather predictive services during the spring fire/burn season. This is necessary to provide forecasts for the planning of prescribed fire activities in north Missouri where NWS forecast services are incomplete. A good deal of prescribed burning occurs in this portion of the state relative to prairie management practices.

The St. Louis NWS office began making spot fire weather forecasts available. The availability of these forecasts to the fire managers within MDC in northern and eastern Missouri is a great addition to the agency's toolbox. The forecasts may be requested online through the offices website. Perhaps some day this office will provide a daily general fire weather forecast as well!

Fire Reporting

During the year Missouri continued an effort to report all fires of 100 acres or more to EACC through the MOCC. A strong effort was made in this regard. While the fire season was not unusually troublesome, a number of fires of 100 acres or more were suppressed and reported by way of the ICS-209. Some of these even made their way to the National Situation Report.

A new field fire report book was developed that matches up with data collection for the online fire reporting system developed last year. It is hoped this system will soon be available to Missouri fire departments.

National Association of State Foresters Fire Department Survey

As part of a national effort to determine the ability of rural fire departments to assist with wildland fire suppression, MDC solicited survey information from each fire department with whom current Mutual Aid Agreements (MAA) exist. Of the roughly 838 fire departments with a current MAA, 629 responded to the survey, giving some great data on which to base program effort over the next few years.

Community Forestry

Community forestry assistance is provided throughout the year to individuals, community groups, municipal governments, tree boards, commercial arborists, and nursery personnel, urban developers and volunteers. In FY03 there were nine field people specifically dedicated to community forestry. A summary of the accomplishments of these nine along with all other foresters is provided below.

Annual Accomplishments are:

Local governments assisted 1,701 Commercial and Industrial assists 704 Residential contacts and assists 2,983

Project Assists to Volunteer Groups 676 projects Trees planted by Volunteer Groups 5,434 trees

Detailed community forestry tree plans were developed for several communities and groups across the state. This in depth service was provided to:

PROJECT

Community Forestry Plans COMMUNITY

COMMONITI	INOJECT
Hannibal	Recommendations for 5 Schools
Kirksville	Bear Creek, Truman State Univ.
Van Buren	City Park Trees
Pierce City	City Park Tree Plan
Nevada	YMCA grounds
North Kansas City	Midwest Baptist Seminary
Stockton	City Cemetery Tree Plan
Kansas City	KC Power and Light public space
West Plains	West Plains Middle School
Marshall	Saline Co Courthouse

Tree Resource Improvement and Maintenance (TRIM)

In Fiscal Year 04 the TRIM program provided grants for tree maintenance, planting, planning and educational activities. Grant amounts ranged from \$1,000 to \$10,000. This program provides 60% or 75% of the total costs with the applicant providing the remaining funds for the project. Letters were mailed to members of the Missouri legislature outlining the project(s) which were funded in their District.

TRIM Project Summary:

Applications received	50
Projects Funded	39
Grants Awarded	\$ 289,126.00
Local Match Dollars	\$ 251,699.00

The grant recipients were:

<u>Applicant</u>	<u>City</u>	Grant Request	Local Cost
City of Bella Villa	Bella Villa	10,000	31,947
City of Breckenridge Hills	Breckenridge Hills	6,780	4,520
Valley R-VI School	Caledonia	7,200	4,800
Centralia Tree Board	Centralia	1,935	645
Clinton Parks and Recreation	Clinton	10,000	7,812
Ferguson-Florissant School District	Florissant	8,972	5,981
Florissant Parks and Rec.	Florissant	10,000	8,500
City of Forest City	Forest City	4,260	2,840
City of Fulton	Fulton	6,460	4,305
City of Gladstone	Gladstone	10,000	5,020
City of Hillsboro	Hillsboro	2,256	1,504
Jr. College District, Jefferson County	Hillsboro	7,140	4,760
City of Independence	Independence	10,000	4,441
City of Kahoka	Kahoka	7,650	2,550
Roanoke Homes Assoc.	Kansas City	8,842	4,590
Volker Neighborhood Assoc.	Kansas City	7,200	4,918
City of Lake St. Louis	Lake St. Louis	10000	5000
Tree Liberty	Liberty	7,692	5,128
Lone Jack C-6 School District	Lone Jack	10,000	7,310
Marshall Habilitation Center	Marshall	9,965	12,091
Maryland Heights Parks and Rec.	Maryland Heights	8,925	2,975
City of Mexico	Mexico	10,000	5,310
City of O'Fallon	O'Fallon	6,000	4,000
Forest Park Elementary	O'Fallon	8,277	5,518
Ozark Parks and Recreation	Ozark	8,542	5,694
City of Rocheport	Rocheport	1,300	867
City of Rock Hill	Rock Hill	10,000	27,763
City of Savannah	Savannah	7,110	2,750
Scott City Parks and Rec.	Scott City	1,960	1,402
Ozark Greenways, Inc.	Springfield	2,500	835
City of St. Joseph	St. Joseph	7,694	2,565
City of St. Louis Forestry Division	St. Louis	7,450	14,504
Forest ReLeaf of Missouri	St. Louis	9,357	21,064
St. Louis County Parks and Rec.	St. Louis	8,840	5,896
Tower Grove Park	St. Louis	10,000	10,000
Town of Grantwood Village	St. Louis	3,915	2,610
City of St. Peters Parks Dept.	St. Peters	7,950	2,650
Sturgeon Park and Tree Board	Sturgeon	6,004	2,001
City of Webb City	Webb City	6,950	4,633
TOTAL REQUEST		289,126	251,699

Missouri Treescape Awards:

In FY04 the Missouri Treescape Awards program was combined with the Missouri Community Forestry Council's Communitree award creating the Missouri Arbor Award of Excellence. This new award is presented jointly by the Council and MDC. Combining efforts with the Council has resulted in a stronger program and less confusion among potential applicants.

Any significant program, project, or event which contributes to the care or maintenance of trees in a Missouri town or community could qualify for an award. The award recognizes those who act as good stewards for trees in their communities. Recognition categories include municipalities/

governments, organizations, business/commercial, and individuals. Winners received a large framed certificate of recognition presented by MDC Forestry Division Administrator Robert L. Krepps at the Missouri Community Forestry Annual Conference.

AWARD CATEGORY	WINNER		
Municipalities/Governments	Kirkwood Urban Forestry Commission and Mountain View		
	Parks, Recreation and Tree Advisory Board		
Organization	University of Missouri—Landscape Services		
Individual	Vicki L. Phillips and Dr. Gary Funk		
Business/Commercial	No Award		

A Citation of Merit was given to three non-winning but outstanding projects. Citation of Merit recipients include:

- City of Clayton, Public Works Department
- St. Charles Community College
- Jamie Frank

Missouri Community Forestry Council:

The Missouri Community Forestry Council (MCFC) took an active role in supporting community forestry programs in the state. The Council is organized with nine regional and independent councils, each with two representatives on the state council. Forestry Division personnel are permanent members of the regional and state councils. During this eleventh year of operation, the Council:

- 1. Secured Federal 501c3 non profit status while moving toward the long term goal of obtaining self sufficiency and improving visibility of the organization. The organization is now considering ways to financially support themselves and add valuable services for members. Ultimately they would like to function administratively independent of MDC.
- 2. Continued support of a public service campaign designed to educate the public that tree topping is not a desirable practice and to provide some alternatives to topping. To augment efforts, the Missouri Department of Conservation assisted with the printing and distribution of an educational brochure targeted at women consumers.
- 3. Sponsored a statewide Arbor Day Poster Contest for fifth grade students in the state. This year's winner was from Holy Infant elementary school in Ballwin. The winning student and her teacher participated in the Governor's signing of the Arbor Day Proclamation.
- 4. Sponsored the 10th Annual Missouri Urban Forestry Conference, held in Columbia.
- 5. Assisted with exhibits at meetings and conferences along with MDC personnel. Examples include the Federated Garden Clubs Annual Meeting, Missouri Municipal League Annual Conference and the Missouri Parks and Recreation Association Annual Conference.
- 6. Assisted in judging of Tree Resource Improvement and Maintenance applications.
- 7. Cosponsored a workshop with Forest ReLeaf of Missouri and the USDA Forest Service in Kirkwood called Storm Preparedness and Response. The workshop drew over 60 people. Many follow up contacts with communities were made as participants considered how to better prepare their municipality to address tree damage and debris from a storm or natural disaster.
- 8. Directly assisted 10 communities with community forestry projects such as volunteer urban tree inventories, development of a municipal tree ordinance, training for developing a tree board, developing a tree ordinance, urban forestry workshops, etc.
- 9. Continued to advise the State Forester concerning community forestry issues, program development and implementation

Tree City USA

The Forestry Division cooperates with the National Arbor Day Foundation and the National Association of State Foresters in the promotion of Tree City USA. Certified cities have an active tree care program supported by an expenditure on community forestry programs of at least \$2 per capita, a municipal tree ordinance, a designated tree board or forestry department and have celebrated Arbor Day. A "Growth Award" is available to communities that have been a Tree City USA for the previous two years, and showed an increase in forestry activities in specific areas.

CITY	<u>POPULATION</u>	\$ SPENT	NO_YEARS	GROWTH	VOL HOURS	PAID STAFF
Ballwin	31,283	\$290,615	13	N	0	0
Blue Springs	48,080	\$156,180	14	N	85	0
Branson	6,050	\$54,560	9	Y	15	1
Brentwood	7,693	\$100,943	16	N	9	3
Cape Girardeau	37,281	\$210,950	6	N	0	0
Carthage	12,668	\$27,291	5	N	200	0
Centralia	3,774	\$47,516	14	N	50	0
Chesterfield	46,802	\$350,592	7	Y	900	1
Clayton	15,138	\$201,417	12	N	400	5
Columbia	84,531	\$628,973	7	N	570	5
Crestwood	11,863	\$60,403	9	N	160	0
Creve Coeur	19,824	\$230,484	7	N	138	2
Des Peres	8,592	\$88,633	21	N	0	0
Dexter	7,500	\$31,700	11	N	25	0
Ellisville	9,104	\$97,900	23	N	25	0
Exeter	707	\$3,337	8	N	65	0
Fayette	2,793	\$17,100	4	N	120	0
Fenton	4,360	\$92,592	21	N	230	0
Ferguson	22,406	\$121,437	15	N	0	2
Florissant	51,087	\$285,763	15	Y	0	2
Fort Leonard Wood	23,225	\$132,117	7	N	1205	2
Gladstone	26,365	\$53,111	2	N	1427	0
Grandview	24,881	\$63,915	9	N	0	0
Hannibal	17,757	\$155,039	5	N	100	0
Independence	113,288	\$247,160	4	N	0	0
Jackson	12,947	\$31,878	9	N	50	0
Jefferson City	39,636	\$95,586	6	N	134	4
Kahoka	2,241	\$7,636	7	Y	85	0
Kansas City	441,545	\$2,528,802	16	N	0	0
Kirkwood	27,324	\$269,438	14	Y	1951	0
Kirksville	17,623	\$60352	6	N	0	0
Lake St. Louis	10,169	\$23,553	3	N	0	0
Maplewood	9,228	\$47,452	5	N	88	0
Maryland Heights	25,756	\$60,580	3	N	180	0
Maryville	10,581	\$31,084	6	N	120	0
Memphis	2,061	\$5,665	11	N	0	0
Mexico	11,350	\$51,625	25	N	100	0
Mountain View	2,430	\$13,832	5	N	155	0
North Kansas City	4,714	\$15,390	7	N	0	0
Oakland	1,540	\$19,750	6	N	12	0
O'Fallon	46,169	\$175,295	1	N	0	0
Parkville	4,059	\$17,109	14	N	30	1
Plattsburg	2,354	\$4,928	4	N	100	0

Richmond Heights	9,602	\$138,666	8	N	0	0
Rock Hill	4,765	\$12,620	18	N	12	0
Salem	4,854	\$17,703	4	N	0	3
Savannah	4,762	\$37,409	7	Y	124	0
Springfield	151,580	\$1,256,923	19	Y	445	9
St. Charles	60,321	\$127,260	1	N	0	0
St. Joseph	73,990	\$271,035	11	N	0	0
St. Louis	348,189	\$6,708,325	22	Y	0	0
St. Peters	51,381	\$336,020	6	Y	0	0
Sturgeon	944	\$5,056	8	N	0	0
Town and Country	10,894	\$162,577	4	Y	0	0
Trenton	6,216	\$20,966	5	N	475	0
University City	37,428	\$375,904	22	Y	112	4
Warson Woods	1,983	\$41,017	15	N	0	0
Webster Groves	23,230	\$226,660	21	N	20	1
Whiteman Air Force Base	3,056	\$41,746	9	N	20	0
Willard	<u>3,193</u>	<u>\$8,635</u>	6	N	<u>1300</u>	0
TOTALS	2,105,167	\$16,998,205.00			11237	45

Summary

- 60 communities certified
- 2 new including O'Fallon and St. Charles and we welcome back to the program Kirksville
- Spending \$16,998,205 or \$8.07per capita
- Eleven Growth Awards were earned for the year
- 38% of population lives in a Tree City USA Community (based on total Missouri population 5,595,211)
- Reporting communities indicate that volunteers donated 11,237 hours of service valued at \$185,410.00 to care for trees
- Reporting communities indicate that 15 Tree City USA communities employ a total of 45 individuals who spent greater than 80% of their time on community forestry management

Tree Line USA

The Forestry Division cooperates with The National Arbor Day Foundation and the National Association of State Foresters in the promotion of Tree Line USA. To qualify for certification, a utility service provider must promote quality tree care by formally adopting pruning standards in compliance with ANSI A300, recommend work practices for trenching and tunneling near trees that minimize damage to the tree, provide annual worker training, have an ongoing community tree planting program, sponsor an annual Arbor Day event, and make at least one mailing to all customers to provide educational information on trees.

Missouri continues to be a leader in participation in this program with just a few other states having participation equal to ours.

Tree Line USA certified utility service providers:

City Utilities of Springfield 9th year of certification, Serving more than 99,561 households Columbia Water and Light 6th year of certification, Serving more than 37,000 households Crawford Electric Cooperative 2nd year of certification, Serving more than 18,100 households Cuivre River Electric Cooperative 3rd year of certification, Serving more than 48,800 households Independence Power and Light 5th year of certification, Serving more than 48,675 households Kansas City Power and Light1st year of certification, Serving more than 475,000 households

Other Community Forestry Activities

- To better understand citizen attitudes towards certain community forestry issues (such as hazard trees, topping and urban sprawl) a self-administered survey questionnaire was mailed to randomly selected recipients in forty-four selected Missouri communities. Our goal was to determine the issues citizens in these communities felt to be most pressing, the support for passage of two ballot issues, and the knowledge level citizens have about the tree program in their community. The overall response rate for the mailing list was 40%.
- A user friendly version of the final report documenting our findings from the FY03 attitude survey of Missouri public officials was printed and distributed. In addition the findings were presented at the Midwest International Society of Arboriculture's annual conference, the Missouri Natural Resources Conference and at The National Arbor Day Foundation's Community Forestry At Its Best conference
- Assisted with International Society of Arboriculture arborists certification and meetings of professional associations
- Provided a grant to Forest ReLeaf of Missouri to support statewide activities involving recruitment and organization of volunteers to carry out community tree planting and tree maintenance

Volunteer Forest Health Monitoring

The Missouri Forestkeepers Network, a volunteer forest health monitoring organization, was established in 1996 by the Department of Conservation's Forestry Division. Day to day administration of the program is contracted out to Forest ReLeaf of Missouri. The goal of the program is to help educate citizens about the care and management of the forest resource and to provide them a means of action.

Forestkeepers provides forest health education, a statewide network of informed forestry advocates, and an early warning system against threats to the health of forest communities, such as infestations of emerald ash borer and gypsy moths. The program has been extremely successful with members branching out from traditional forest management activities into community forestry management, and education of youth. The total number of members in the Network is 1,560 many of which are families and/or groups. These volunteers contributed 3,510 hours of service monitoring and caring for Missouri's forests.

HR Coordinator HUMAN RESOURCES DIVISION Safety Coordinator **Employee Relations** Manager Division Administrator Training/Development Coordinator Administrative Staff Assts Accounting Assistant HR Technician Compensation Manager HR Services Analyst **HRIS** Coordinator HR Data Analyst HR Specialist Office Manager Administrative Staff Assts Office Supervisor **Employment Manager** HR Coordinator **HR** Analyst

HUMAN RESOURCES DIVISION

Human Resources Division provides services that help the Department attract and retain qualified employees who will accomplish Department goals and objectives. Activities are divided into six major functions: (1) Recruitment and Selection, including Equal Employment Opportunity and Affirmative Action; (2) Compensation and Classification Administration; (3) Policy Administration, including law and regulation compliance and employee relations; (4) Training and Development; (5) Employee Benefits Administration, including administration of the Department's insurance program and other employee services; and (6) Employee Safety, including Workers' Compensation. The Human Resources Division Administrator supervises Division assignments and reports to the Deputy Director-Administration. Specific details on Human Resources Division's activities follow.

Recruitment and Selection

During FY04, Human Resources Division maintained 8,622 applications and coordinated recruitment and selection activities for 180 positions in which 93 new employees were hired, 76 employees were promoted, 9 employees were laterally transferred, and 2 employees were voluntarily demoted. Staff worked with Department supervisors to handle advertising, select interviewees, prepare interview questions, select panels, conduct reference checks, and prepare/distribute all recruitment and selection correspondence. A variety of recruitment methods were used to alert applicants to these job opportunities, including:

- 1. Advertising—A Job Opportunities Announcement describing duties and responsibilities, educational requirements, core competencies and special abilities was prepared for each vacancy and distributed to various recruitment sources. Recruitment sources included universities, newspapers, magazines, and professional groups and organizations.
- 2. Internet Job Listing—A listing of position openings was updated weekly on the Department's web site and an Application for Employment was available to download.
- 3. Office Contacts—Walk-in applicants were informed of job opportunities by visiting with Division staff. During FY04, approximately 204 individuals were assisted.
- 4. Special Recruitment and Career Activities-Staff participated in 6 career and employment fairs and chaired the Department's Internship Committee. Over fifty (50) colleges and universities were contacted to promote internship opportunities and to establish a data base to track progress of the program. In May 2004, the first group of college students began the annual internship program.

Activities were also coordinated by Division staff to promote greater knowledge and awareness of the field of natural resources management and conservation among minority students. These included a college recruitment visit to the University of Arkansas which is a historically black university; participation in a partnership with other state and federal agencies, universities and private entities to explore ways to provide students with the opportunity to learn about natural resources and associated career opportunities; and, participation with the Minorities in Natural Resources Committee (MINRC) of the Southeastern Association of Fish and Wildlife Agencies (SEAFWA) that works to increase workforce diversity in their respective agencies.

Monitoring the Department's affirmative action efforts is another part of Division responsibilities. The Department affirms its commitment to affirmative action through strategies outlined in its Affirmative Action Plan (AAP). In FY04, the Department's Workforce Council continued to analyze recruitment, retention and diversity efforts of the Department. Human Resources staff chaired the Council and managed a variety of activities recommended by Council members. These activities included:

• Coordination of 14 employee meetings with the Department's Director that combined an agency

- update with diversity training. The diversity training program was developed by Human Resources staff and involved extensive research and design of effective materials, preparation of facilitator manuals and participant workbooks, and training of Department facilitators.
- Development and implementation of 2 programs intended to expand conservation services and awareness with new groups. One program is with the Wyman Center in St. Louis and incorporates two significant elements: (1) improving the content and delivery of conservation programs at Wyman's summer camps and (2) creating and implementing a pilot program that annually encourages St. Louis youth from diverse backgrounds to explore and eventually select conservation career paths. The second program is with the University of Missouri-St. Louis and the Matthews-Dickey Boys and Girls Club. This program will include a summer camp for children ages seven through thirteen, primarily African-American.

Compensation and Classification Administration

Human Resources staff performs compensation and classification activities affecting all Department positions. These activities help the Department allocate personnel services dollars and pay wages that will attract a qualified workforce. During FY04, Division staff conducted a comprehensive Department-wide study of all positions (approximately 275 titles) and provided recommendations to the Department's Administration and Conservation Commission regarding necessary revisions to the compensation plan. Approximately 750 employees were interviewed and over 1,400 position description questionnaires were reviewed during the course of the project. Results of the study included the upward reclassification of 88 jobs, downward reclassification of 56 jobs, lateral transfer of 5 jobs, and deletion of 17 job titles.

A variety of information is used to determine the appropriateness and competitiveness of the Department's pay system. In FY04, Human Resources staff conducted the biennial ten-state Resource Salary Survey, including preparation of the survey questionnaire, quality assurance of data received, statistical analysis of results and preparation of the final report. Results were distributed to participating states and were also used as part of the data considered during the Department-wide job study. Additionally in FY04, Human Resources staff participated in 24 salary and benefits surveys from outside sources. Activities included determining appropriate job matches and collecting/reporting requested salary and benefits data.

Policy Administration

Human Resources reviews and administers a variety of laws, executive orders, and regulations addressing human resources management issues. Annually, staff reviews proposed legislation which may affect the Department and its employees and continuously monitors the Department's compliance with provisions of equal employment opportunity and wage and hour laws. In FY04, staff reviewed 161 versions of proposed legislative actions and responded with fiscal impact assessments.

In addition, Division staff coordinates the Department's compliance with federally-mandated alcohol and drug testing provisions and its own internal alcohol and drug testing policy. Division staff monitors the application of the mandates and acts as liaison between the Department and outside contracted services. In FY04, staff coordinated drug and/or alcohol testing for 676 pre-employment and post accident tests and 174 random tests.

The Division also maintains the Department's Human Resources Policy Manual which provides supervisors with policies and procedures that comply with employment laws and help them guide employees uniformly and fairly. In FY04, staff established or revised 3 human resources policies.

Training and Development

Continuous improvement of employee job performance is a primary Department objective. The Academy for Leadership Excellence is an integral component in the Department's efforts to provide learning opportunities for all employees that are based on employee identified competencies for 5 levels of employee positions. The Academy for Leadership Excellence supports the vision that all employees are leaders, teachers, and learners who work interdependently to meet the Department's mission. During FY04, staff coordinated 208 Academy for Leadership Excellence training sessions held throughout the state for 3,584 attendees, and 8 New Employee Orientations for 96 attendees. Three new programs were designed for the Academy in FY04 and a new on-line training management component (part of the Department's Human Resources Information System) was tested and implemented to provide employees the ability to self-enroll and track Academy training attendance.

Employee Benefits Administration

Employee benefits are a major factor in recruiting and retaining a competent workforce. Human Resources Division administers the following services:

- 1. Conservation Employees' Benefits Plan Trust Fund (medical and life insurance programs)—As of June 30, 2004, over 4,090 employees, retirees, surviving spouses, and dependents participated in the Department's group medical and life insurance programs which include a self-insured medical plan. Division staff continued to facilitate the Conservation Employee's Benefits Plan Trust Fund Board and worked closely with the insurance consultant to effect changes to the program.
- 2. Missouri State Deferred Compensation and Cafeteria Plans—As of June 2004, 1,258 employees were enrolled in the Deferred Compensation Plan; as of June 2004, 1,183 employees were enrolled in the Cafeteria Plan. Both plans allow tax savings for employees who redirect a portion of earnings before federal, state or social security taxes are withheld.
- 3. Paid and Unpaid Time Off —Time and attendance events related to annual leave, sick leave, compensatory time, bereavement, military duty, jury duty, special leave, shared leave, FMLA and workers' compensation were reviewed by staff for accuracy and compliance with Department policies and procedures. Staff frequently provided assistance to employees and supervisors regarding the application of time off policies and the accurate recording of time worked and taken.
- 4. Unemployment Insurance—Unemployment insurance claims are monitored by Division staff when an employee's termination/resignation is for reasons other than lack of work. In FY04, 84 unemployment insurance claims were reviewed; 10 were protested.
- 5. Employee Assistance Program (EAP)—The Employee Assistance Program provides assistance to employees experiencing personal problems that may affect on-the-job performance. The Department's program provides employees and their family members up to five Department-paid visits for professional counseling per calendar year. Human Resources staff assisted 81 individuals in FY04 by locating and referring them to appropriate counseling services.
- 6. Human Resource Information System (HRIS)—The HRIS maintains and makes available extensive information pertaining to Department employees and retirees. During FY04, over 1500 personnel actions were processed for salaried employees. A monthly reconciliation process was developed to ensure leave balances for retiring and terminating employees is accurately reflected in SAM II, a user manual was developed for the web-based training management system, and instructional materials were developed to guide users on the web-based time reporting system—all during FY04.
- 7. Missouri State Employees' Retirement System (MOSERS)—Division staff assists Department employees with enrollment procedures and appropriate changes, answers inquires regarding benefit provisions, and processes retirement requests. During FY04, 38 employees were enrolled in MOSERS, 28 retired under the Governor-approved and Commission-adopted Medical Insurance Retirement Incentive Program.

Employee Resignations and Retirements

	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>
Total Salaried Employees	1,538	1,538	1,499	1500
Resignations/Retirements, etc.	85	113	145	82
Percent	5.5%	7.3%	9.7%	5.5%

Employee Relations and Services

Human Resources Division is involved in programs and activities promoting employee relations such as employee recognition activities which include service awards, special achievement awards, and retirement plaques. Tenure is recognized in five-year intervals, beginning with 10 years of service. During FY04, Human Resources prepared and distributed 176 service awards.

The Department also provides activities that are intended to promote a healthy and safe environment for employees. During FY04, Human Resources staff coordinated 13 health screenings/fairs, 6 wellness workshops/events, and 18 first aid/CPR classes at several regional locations as well as other selected work sites.

Employee Safety

Loss control programs are another important activity administered by Human Resources that includes safety training; hazard identification on conservation areas and public lands; chemical safety; and accident prevention programs. Accident investigations and administration of vehicle accident and personal injury reporting are ongoing programs, along with assistance on the purchase and use of personal protective equipment. In addition, the Safety Coordinator administers self-insured programs for Workers' Compensation, public liability, and vehicle/watercraft liability.

In FY04, staff continued to provide assistance to Regional Safety Committees by visiting every Regional Safety Committee Liaison and Regional Coordination Team Chair and by working with Regional Safety Committees on their localized programs. Staff also participated on a variety of state committees including the Missouri Long-Term Recovery Task Force and SEMA Emergency Response and attended meetings concerning Homeland Security. Finally, a new severe weather warning program was developed, tested and implemented in the Department's Central Office.

A number of safety training programs were offered or facilitated by Division staff with attendance as follows: 126 participants in Driver Skill Enhancement; 96 participants in Chainsaw Safety; and 94 participants in ATV training. Safety training is also a part of the New Employee Orientation and Policies and Procedures workshops offered in the Academy for Leadership Excellence.

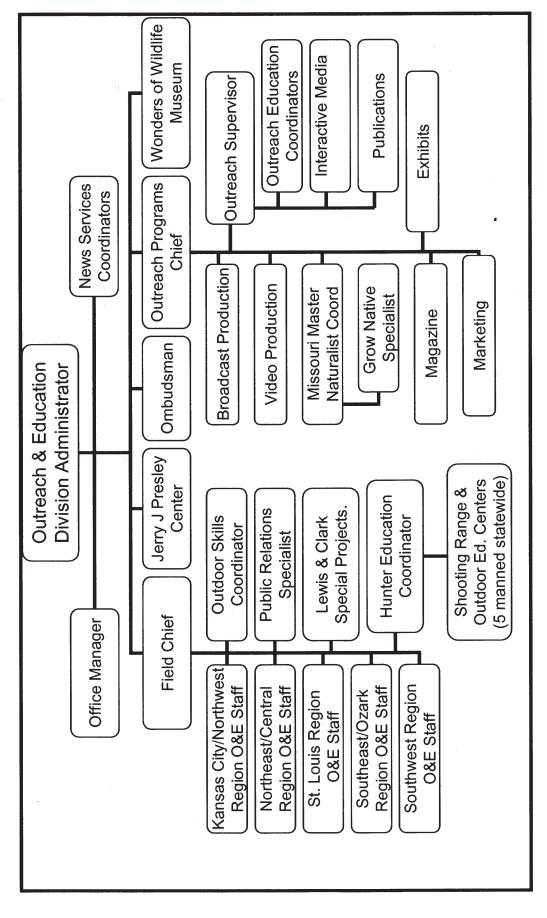
In FY04, the Department received 116 vehicle incident reports of which 35 required coordination of payment (over \$66,000) or subrogation benefits (over \$43,000) and administration of repair cost payments (over \$143,000). Staff recorded 89 personal injury incident reports with a total of over \$523,000 in claims payments, and recorded 54 public mishap reports.

In FY04, staff administered the safety incentive program which included bidding out safety awards, communicating choices to employees, ordering selected items and distributing awards to 275 qualifying recipients.

General

In FY04, Human Resources received and processed 18,717 pieces of mail, including 3,486 applications. The mail represents an ongoing relationship with various members of the general public, outside agencies (both private and public), consumer groups, and educational organizations and institutions. This relationship is an essential service provided by Human Sources in order to represent and accomplish the mission of the Department.

Outreach & Education Division



OUTREACH AND EDUCATION DIVISION

The Outreach and Education Division is dedicated to helping Missourians connect with nature and conserve it, too. The goal is to educate young and old about how to sustain a healthy environment, make good use our fish, forest and wildlife resources and also enjoy nature-based outdoor recreation. The main programs of the division include conservation education, outdoor skills training, nature interpretation and media outreach.

Nature/Education Centers

An outstanding network of conservation learning centers helps bring people and nature together across the state. Nature centers in Blue Springs (Burr Oak Woods Conservation Nature Center), Jefferson City (Runge Conservation Nature Center), Kirkwood (Powder Valley Conservation Nature Center) and Springfield (Springfield Conservation Nature Center) and visitor centers in Andrew (Northwest Regional Visitor Center), St. Charles (August A. Busch Memorial Conservation Area), St. Louis (Rockwoods Reservation) and Taney (Shepherd of the Hills Hatchery Visitors Center) counties offer unique nature exploration programs. A newly added visitor center at Columbia Bottom Conservation Area near St. Louis also opened this year. More than 800.000 people visited these interpretive centers, while over 170,000 of those attended specific programs there. Special events held by the nature these centers covered subjects as diverse as Eagle Days, Haunted Habitats, and Vulture Venture. Nature Center Volunteers donated more than 23,000 hours of service to by providing programs and information to the public.

The Discovery Center, located in the heart of Kansas City, offers a new approach to learning by featuring six workshops that offer hands-on instruction to schools groups and individuals in a building that highlights energy-efficient design. More than 47,300 visitors came to the center, while 24,607 students attended the workshops.

Three MDC staff jointly working with the Wonders of Wildlife Museum in Springfield also provided educational programs to more than 13,000 people, largely school-age groups.

Missouri Conservationist Magazine

One of the division's most popular products is the Missouri Conservationist magazine, a source of conservation information that has been free to adult Missourians since 1938. During the course of the 2004 fiscal year, the circulation for the Missouri Conservationist averaged about 470,000. The October issue held a special 16-page insert for our "Nature Shop." A pullout, 16-page "Outside In," the children's section of the magazine, appeared in the August, November, February and May issues. In each of those months, about between 67,000 and 73,000 copies of "Outside In" were mailed to teachers, libraries and home-schoolers across the state. The magazine's photo unit completed the transition into digital photography and digital production, which provides an ongoing cost savings over the earlier use of film and slide scanning.

Interactive Media

The website at www.missouriconservation.org is an important source of conservation information. Over 3200 Web documents were revised or newly published over the course of the year. The total number of page views was 25.9 million-up almost 5 million from last year. The statewide television campaign promoting MDC resulted in approximately 200,000 new visitors to the Web site.

"Habitactics 2: Urban Oasis" was released in December 2003. This product was developed in-house at considerable cost savings. It's an interactive game for ages 9 and up. It runs on Macintosh and Windows platforms and is designed so that it can be modified in the future to provide new learning games. It teaches about the basic requirements all wildlife must have to survive-food, water, and

shelter or cover. Although the focus of the game is on wildlife you would tend to see in urban areas, the game is entertaining and informative about Missouri wildlife in general.

News/Radio/TV

"Missouri Outdoors," the Department's Emmy award-winning half-hour, 13-week television series, aired throughout the state on 38 network affiliates, independent and cable stations. Some of the topics of the magazine-style show included a youth deer hunt, morel mushrooms, hellbenders, No MOre Trash!, West Nile virus, Arbor Day, smallmouth bass fishing, FFA shooting competition and more. One of the 13 programs featured Lewis and Clark while another featured the history of the logging industry in the Ozarks.

Weekly TV news features running approximately 90 seconds were produced and distributed to each market in the state for broadcast during local newscasts.

A weekly print news release, "All Outdoors," provides outdoor information on a statewide basis, while a more local perspective is provided through media specialists working directly with news media in each region. "All Outdoors" news releases were sent to 667 media outlets, with potential distribution to 1.2 million readers weekly. "News Tips" were distributed to 140 TV and radio stations statewide. News releases are also available on the Conservation Department website.

Video/Audio Production

New video production includes a new documentary feature, "Bringing Back Bobwhite Quail: A Landowner Tour". This program highlights the importance of a legacy species in Missouri, dispels common myths, and takes viewers on a tour to see habitat changes and practices that landowners are doing to increase quail and other small game on their property. This program was distributed to landowners through various agencies in the state.

A new interactive DVD was designed and produced for the Columbia Bottom Conservation Area in St. Louis. This program introduces visitors to eight exploration stations in the area that highlight a variety of natural habitats from Big Rivers to Prairies.

In cooperation with the Missouri Department of Tourism and to help make Missourians more aware of the opportunities to enjoy the nature of our state, a 30-second commercial was run in our two largest urban areas. The ad titled "Action/Reaction" directed viewers to the MDC website for more information, which resulted in an increase of 200,000 hits on the website during the time the ad ran.

The "Conservationist Audio Magazine" was produced monthly and distributed to approximately 330 outlets statewide, including schools and public libraries. The Wolfner Library also creates cassette copies for the Blind and Physically Handicapped for monthly circulation through their own user list. Magazine text is now sent to Wolfner monthly for conversion to electronic Braille reader format.

Publications

Throughout the 2004 fiscal year, the publications staff produced many books, booklets, brochures, pamphlets, posters and logos.

• Included among them were the annual regulatory publications (Wildlife Code, Hunting and Trapping Summary, Fishing Summary, Fall Deer and Turkey Leaflet, Early Migratory Bird Digest and Spring Turkey Booklet) and the popular Natural Events Calendar. New books completed and available for sale included "In Focus," "Fox in the Forest" and a major revision of "The Shrubs and Woody Vines of Missouri." We also reprinted "The Key to Missouri Trees in Winter" and "A Paddler's Guide to Missouri."

Many publications available free to Missourians are produced each year. Some recent titles included:

• Big River Ecosystem Poster Guide, Small Stream Ecosystem Poster Guide, Firearms Safety booklet. Cable Restraint booklet, Screens for Small Yards, Hellbender Poster, Aquatic Plants booklet, Fish Critter Cards, Fall Color brochure, Endangered Species poster, No More Trash posters, Deer management publications package, Columbia Bottom Conservation Area booklet

Reprints of popular free publications included:

• Landscaping for Backyard Wildlife; Right Tree in the Right Place; Missouri Wasps and Bees; Missouri Eagles, Hawks and Falcons; Missouri Lizards; Missouri Toads and Frogs; Edible and Poisonous Mushrooms of Missouri; Common Spiders of Missouri; Wildflower Favorites; Introduction to Fishing

Nature Shop Marketing

MDC nature shop marketing focuses on enhancing the enjoyment of Missouri's fish, forests, wildlife and recreational resources. Staff produced products for the last year include: the children's book "Fox in the Forest" which introduces children to the amazing array of life in Missouri forests; a DVD, "Where Eagles Soar" that tells the story of the eagles' decline and return to Missouri; the book "In Focus" with Jim Rathert showcases his photography of wild Missouri featured in the Missouri Conservationist. A revised edition of "Shrubs and Woody Vines of Missouri" shares what you need to know about Missouri's native shrubs and vines. And the trio of "Grandin: The Big Mill and Tall Timber," "Stamp of Character," and "Forests for the Future" in DVD focus on historical and future forests in Missouri. The MDC Nature Shop guide appears annually as handy pullout section in the October issue of the Missouri Conservationist. MDC books and videos are also available online at www.mdcnatureshop.org.

Exhibits, Fairs and Special Events

Major exhibit design and fabrication was completed for the new Columbia Bottom Conservation Area and Visitor Center in North St. Louis. The outdoor experience focuses on understanding the eight floodplain habitats by visiting Exploration Stations along the roadside throughout the area. The Exploration Stations consist of an S-shaped concrete wall with embedded mosaics and interpretive graphic panels. A grand opening of the new viewing platform there gives visitors a close view of where the Missouri and Mississippi Rivers meet. Indoor exhibits for the visitor center were designed and fabricated by in-house exhibits staff. The dedication for the visitor center and explorations stations was held on May 27, 2004.

A series of thirty-one (31) wayside exhibits (or interpretive signs) about Lewis and Clark were completed and installed in aluminum bases at Missouri Department of Conservation's conservation areas and river accesses along the Mississippi and Missouri rivers. Topics include stories of Lewis and Clark's observations of Missouri's fish, forests and wildlife and show how the river has changed over time.

The Exhibit Shop provided portable exhibits to many local and regional fairs, sport shows, home shows, and hunting and fishing events, reaching over 100 events. The Missouri State Fair (serving over 300,000 Missourians), and Ozark Empire Fair (reaching over 200,000 people) were some of the largest fairs in the state that staff from Outreach and Education and other divisions staffed to provide information to the public.

No MOre Trash!

Missouri's litter prevention campaign, sponsored initially by the Conservation Department and MoDOT, continued during FY04. Two public service announcements were produced for television and one produced in FY03 was awarded first place public service announcement in the National Association of Government Communicators' Gold Screen Competition. The video ad contest for 16-22 year old Missourians continued and four videos were chosen winners, with an additional six chosen as honorable mentions. The winning and runner-up videos are available for viewing on the web site www.nomoretrash.org. Building on the success of the 2003 No MOre Trash! day, May 1-9 was declared No MOre Trash! week. During the week, over 500 groups and 4000 individuals picked up more than 13,500 bags of trash, as well as truckloads of items too big to fit into trash bags. During FY04, No MOre Trash! sought to broaden its support base by exhibiting at a number of conferences including the Interface Conference on Math, Science and Technology, and the Missouri Natural Resources Conference.

Missouri Master Naturalist Program

A new program was initiated in FY04. The Missouri Master Naturalist program is an adult, community-based, natural resource education and volunteer program co-coordinated by the Missouri Department of Conservation and University of Missouri Extension. This fee-based program is set up in local chapters. Participants receive 40 hours of basic education in Missouri natural history and natural resource conservation. They receive an additional eight hours of advanced training annually. Participants agree to contribute 40 hours of natural resource related volunteer service annually. During FY04 a statewide structure was put in place to support the program including the development of a training outline, participant materials, and policies and procedures to govern the program. Chapter coordinator training was held in September, 2003. The first Chapter was formed in West Plains and 19 Master Naturalist volunteers graduated from training in May, 2004.

Grow Native!

This program was reorganized in May, 2004 to better allocate efforts to: 1) increase native plant supply and demand and 2) increase awareness of benefits of native plants and how to use them. The business/marketing side of Grow Native! was transferred to the Missouri Department of Agriculture, where it's an excellent fit with the other AgriMissouri programs. The information/education part of the program shifted from MDC's Private Land Services Division to the Outreach and Education Division.

An ongoing cooperative effort with the Shaw Nature Reserve/Missouri Botanical Garden resulted in a very successful "Landscaping with Native Plants" workshop held in St. Louis in Feb. 2004. About 500 people including both landscape professionals as well as private citizens interested in doing more with natives attended this.

Conservation Education

Conservation education staff work with teachers and administrators at public, private and parochial schools, colleges and universities, other governmental education agencies, as well as youth leaders and community leaders to ensure that Missouri's natural resources can be sustained in a healthy environment for generations to come.

Efforts include: developing and distributing a variety of teaching materials correlated with testing needs; providing teacher workshops and courses; providing demonstration teaching and outdoor learning opportunities as well as some direct educational presentations to students and youth groups. More than 59,000 teachers, youth leaders and students were reached in direct educational programs.

O&E staff overall provided 707 school programs about aquatic resource conservation to 24,289 Missouri students. Education Consultants delivered 49 ARE-themed workshops, training 1,037 public, private, parochial, and home-school teachers and community leaders. 19,807 Missourians fished, many for the first time, at MDC-sponsored fishing clinics around the state. Altogether, O&E and Fisheries staff working together reached 197,388 active participants (with about a million passive contacts).

Agriculture educators and students are reached through targeted efforts such as the FFA Summer Leadership Camp with over 1300 students and advisors. Partnerships between MDC and the agriculture education community proved highly productive in FY 04. Over 3000 FFA students, their advisors, parents and guest visited MDC booths at the State FFA Convention and Career Show, held at the Hearnes Center in Columbia. Highlights included a Lewis and Clark encampment, free tree seedlings, interactive fishing and hunting experiences and hands-on learning opportunities. Twentythree agriculture teachers attended a week long Forestry Summer Institute held at Poosey Conservation Area. Program updates and general information related to MDC was also shared at all six (6) District Agriculture Teacher's meeting across the state.

In an effort to develop a new way to get the conservation message to students, O&E staff in the St. Louis began a three-year pilot in three St. Louis area schools for a middle school program that will include teacher training, classroom presentations, field trips to local conservation areas or parks and a conservation action (service learning) project.

Conservation materials made available to teachers and students include a pre-school publication Conservation Seeds, a series for K-2 students in a quarterly print format, and Habitat Packs for 3rd and 4th grade classes that focus on streams, forests, prairies and wetlands. Several education publications were reprinted including Lewis and Clark Outside In, Missouri Wildlife Trails, Rivers and Streams student magazine, Counting on Conservation poster, Missouri Owls poster, and Conservation I Can Do student activity booklet.

Project Learning Tree (PLT) and Project WILD are environmental education programs designed for teachers and other educators working with children from kindergarten through grade 12. They are a source of interdisciplinary instructional activities and provide workshops and During FY04, the Conservation Department supported 22 PLT workshops that were attended by 277 educators and 25 WILD workshops for 364 educators.

Show-Me Outdoor Classrooms

Staff also works with school leaders who want to use their own outdoor classrooms, which enable students to learn in an "outdoor laboratory" based on natural habitats. Through a partnership between the Missouri Conservation Heritage Foundation and the Conservation Department, 71 schools received outdoor classroom grants. Awards ranged from \$300 to \$1,000, for a total expenditure of \$67,000. Designed to assist schools in the development of outdoor learning sites, this program promotes interdisciplinary, hands-on instruction through conservation education in the out-of-doors. In addition, the program encourages awareness, appreciation, knowledge and active conservation of natural resources, including native vegetation, wildlife and wildlife habitat.

Lewis and Clark Activities

Conservation Department staff created dugout canoes with hand tools, floated them on the Missouri River, reenacted the historic skills and crafts that served Lewis and Clark well in their historic travels and brought the nature they saw in the past to life today in programs for schools and communities across the state. More than 567,900 people attending school, community or other special events had the opportunity to learn more about the contrast between what Lewis and Clark saw and did then with what Missourians experience today.

Lewis and Clark Conservation Grants

This one-time grant was made available to schools and communities interested in sponsoring programs to help their students and neighbors learn about the Lewis and Clark Corps of Discovery expedition and its connection to Missouri's natural resources. Grants up to \$750 were awarded to 105 schools for field trips to Lewis and Clark sites, special commemorative events or projects. An additional 300 schools received a Conservation Education Resource Trunk containing a variety of instructional resources and materials. The trunks were valued at \$750. In addition to the \$295,500 awarded through the school grants 15 communities also received grants ranging from \$1,500 to \$15,000 for a total expenditure of \$166,000.

Journaling with Lewis and Clark: A Discovery of Outdoor Missouri activity

The Journaling with Lewis and Clark: A Discovery of Outdoor Missouri activity encourages Missouri residents to visit eight participating interpretative sites and complete a journaling activity at each. At the beginning of their journey, participants receive a booklet titled: Journaling with Lewis and Clark: A Discovery of Outdoor Missouri, which was developed for them to record their journaling activities at each site. Special lapel pins were designed for the eight sites and for completing all eight journaling activities. This activity began on June 1st, 2004, and continues until May 2005.

Outdoor Skills

Another important part of the outreach and education effort focuses on teaching people the skills to enjoy Missouri's outdoors safely and responsibly. As more Missourians grow up in urban landscapes, they have less contact with the natural world. The division's Outdoor Skills Specialists work to give Missourians of all ages direct experience in nature-based activities such as camping, fishing, hunting, birding, canoeing, trapping and orienteering. Like conservation education consultants, the outdoor skills specialists work directly with teachers as well as students to get these skills in school and youth group programs. In the past year, they presented teacher workshops or youth programs to more than 29,000. Three new outdoor Skills Modules (Historic Crafts, Basic Fishing and Map and Compass) were distributed to teachers and ten additional modules were begun.

Special skills events and programs were held throughout the state for both youth and adults. Examples included Wild Game 101, Hunter Skills University, Archery, Air Rifle, Outdoor Hazards, Outdoor Skills Camp, and Carp Camp, High School State Trap and Skeet Championships. Several outdoors skills staff joined with other MDC staff to host the Concerns of Police Survivors Spouses event. The first Missouri's Outdoor Women event (much like Becoming an Outdoorswoman but allowing younger women age 14 and older to accompany an adult) was held at Windermere.

MDC provides partial funding for a 4H outdoor skills position, which is responsible for coordinating the 4H Shooting Sports as well as other skills efforts. Staff helped to host the 4H National Shooting Sports Championship held near Columbia.

Hunter Education

The outdoor skills staff also works with conservation agents to coordinate the many volunteers who provide hunter education training. Hunter Education certification is required for purchasing any type of firearm hunting permit for persons born on or after January 1, 1967.

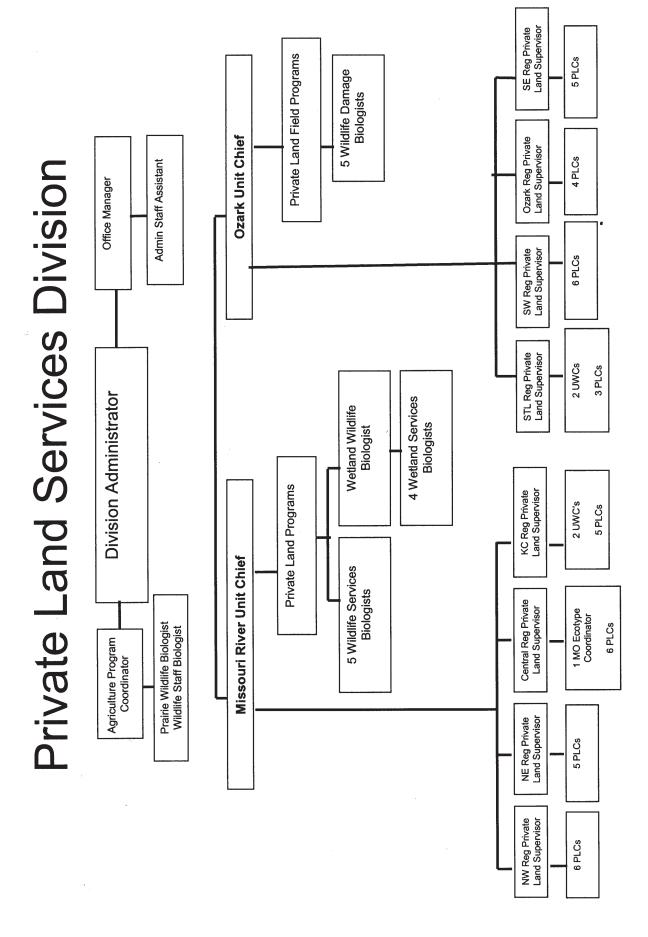
From July 1, 2003 thru June 30, 2004, outdoor skills supervisors coordinated 973 hunter education classes. There were a total of 28,754 graduates from these classes that were taught by a cadre of 1610 volunteer hunter education instructors, conservation agents and outdoor skills specialists.

There were 37 hunting incidents investigated. Of the total, 31 were nonfatal and six were fatal.

Shooting Range and Outdoor Education Centers

Learning to safely handle firearms is part of the hunter education training, but hunters also need places to practice. In response to demand, in 1972 the Department began to develop shooting ranges that meet or exceed national safety standards for shooting range design. Five staffed training center ranges and numerous unstaffed conservation shooting ranges have been created to provide Missourians with opportunities to practice their skills using firearms and archery equipment. In the past year, the five shooting range and outdoor education centers hosted 104,809 visitors (79,372 using the ranges and 25, 437 attending more than 1000 diverse programs related to nature-based outdoor activities).

An unstaffed range was completed at Little Indian Creek, while the Mineral Area College and the Steele range/training complex renovations were also completed. A range at Deer Ridge was reconditioned.



PRIVATE LAND SERVICES DIVISION

Mission: Help landowners achieve their land use objectives in ways that enhance the conservation of Missouri's natural resources.

The Private Land Services Division (PLS) enjoyed a successful, but demanding year in fiscal year 2004. In October of 2003, Lisa Allen became the Division Administrator. Expanded partnerships, increasing requests for landowner assistance, and success generated from previous years' efforts combined to yield many opportunities to address Missouri's need for natural resource management on private lands. The division currently has seventy-eight full-time employees to deliver private land programs and respond to landowner requests for assistance.

With 93 percent of Missouri's landscape in private ownership, delivery of information and expertise to interested individuals and organizations is critical to long-term sustainability of our natural resources. The future of many wildlife species and the conservation of our natural resources depend on private landowners, and their commitment to the implementation and provision of good land stewardship.

MDC Strategic Goal #2-Preserve and Restore the State's Biodiversity

Strategic Issue-Tallgrass Prairie Conservation

Strategic Issue-Prairie Chicken Population Decline

Strategic Issue-Decline in Quail and Rabbit Populations

Strategic Issue-Control of Invasive Exotic Species

Grow Native!™: The Grow Native!™ program, which began in 2000, is designed to create awareness of the importance and benefits of using native plants in both urban and rural settings. The Grow Native!™ program promotes the use of native plants to increase biological diversity statewide on both public and private lands. The program has evolved to include a combination of education, demonstration, and marketing strategies, aimed at boosting consumer and commercial demand for Missouri-grown native plants and helping consumers easily find both quality native plant materials and capable native landscape professionals. In an effort to enhance the capabilities of the Grow Native!™ program, the Missouri Department of Conservation (MDC) has joined in partnership with the Missouri Department of Agriculture (MDA) to administer and deliver the Grow Native!™ program. MDC will continue to administer the outreach and education components of the program while MDA will administer the business development and membership services components. MDA has a clear mandate to help Missouri's agriculture related industries grow and flourish and has a long history of providing domestic and international marketing assistance to farmers and agribusinesses. Therefore, their efforts will support Missouri's native plant industry through marketing and business counseling. MDC has a long history of conservation education and outreach programs, which will support awareness and demand for Missouri-grown native plants.

Missouri currently has approximately 13 million acres of grasslands. Over 90 percent of the historic Tallgrass prairie has been converted to other land uses and exotic or introduced grass species. While improving grassland and prairie habitats is an objective of many PLS field staff, the Division dedicates two full-time-equivalent positions to educating and informing private landowners, governmental agency staff, and interested individuals regarding the use of native plants and beneficial grassland and prairie management techniques. These efforts provide leadership for the use and management of native plants and invasive species in agricultural and habitat management-based applications throughout Missouri and the Midwest. Specific examples include:

• Expanding partnership efforts with the University of Missouri and the Natural Resources Conservation Service to integrate native grass forage and livestock management systems into existing workshops, grazing publications, curriculum, and popular literature.

- Assisting staff from other divisions in the implementation and investigation of the effectiveness of patch burn grazing and related techniques for sustaining grassland wildlife and prairie ecosystems.
- Serving as the MDC designated Prairie Chicken Recovery Leader by educating and informing private landowners regarding prairie chicken recovery efforts, beneficial habitat management opportunities, and overall life history information.
- Increasing invasive species control efforts in FY04 utilizing \$50,000 to reduce the impact of these species on private land throughout the state. Examples included teasel, bush honeysuckle, purple loosestrife, and sericea lespedeza.
- Providing \$119,145 to establish diverse native warm season grass plantings on over 1550 acres of private land.
- Sending The Covey Headquarters newsletter, targeting quail and early successional wildlife species, to approximately 10,000 landowners and 1000 interagency staff quarterly.

MDC Strategic Goal #2-Preserve and Restore the State's Biodiversity Strategic Issue-Wetland Diversity

Strategic Issue-Missouri River Habitat Enhancement Opportunities

Historically, the Missouri River and associated floodplain provided habitat for numerous species of resident wading birds, migrating waterfowl and shorebirds. Due to the ease of conversion to agricultural purposes, floodplain wetlands have diminished along the Missouri River. The Missouri Agricultural Wetland Initiative (MAWI) is an effort to emphasize the water quality benefits of wetlands in intense agricultural settings. This Initiative is a partnership effort between MDC, Ducks Unlimited, and the Missouri Corn Growers Association, including shared funding and technical expertise.

Since 1992, Wetland Services Biologists have partnered with the Natural Resources Conservation Service (NRCS) as part of the delivery mechanism for the Wetland Reserve Program (WRP) and the floodplain easement portion of the Emergency Watershed Protection Program (EWP) to restore 99,428 acres on 699 sites in 66 Missouri counties.

MDC Strategic Goal #3-Educate the Public about Fish, Forest and Wildlife Conservation Strategic Issue-Conservation Education Strategic Issue-Human/Wildlife Conflicts

PLS Division held, participated in, or assisted with over 185 individual events and 118 meetings to reach landowners and interested individuals. The majority of the events were technical training workshops, habitat management demonstrations and field days, and related outreach efforts intended to increase awareness of Department programs and services. An estimated 65,000 individuals were exposed to beneficial conservation messages through PLS staff outreach efforts. The major theme of PLS outreach efforts in FY04 was the population declines, and associated habitat management opportunities, of grassland birds and early successional species such as quail and rabbits.

With receipt of several grants, the Northwest Region PLS Division staff conducted a quail restoration information and education campaign through the innovative uses of restaurant placemats, bumper stickers, window stickers, demonstrations, field days, and pocket calendars. Over 3500 how-to videos and DVDs were distributed to Missouri cooperators interested in quail management.

As urban sprawl becomes more prominent and larger farms are being divided into smaller acreages purchased by non-agricultural landowners, the frequency of human/wildlife conflict increases greatly. Adding to the problem is the decrease in furbearer hunting and the sharp decline in trapping over the last ten years. These combinations mean higher furbearer populations, fewer local trappers providing relief, and more suburban and rural landowners who lack the skill, knowledge, and equipment to address wildlife conflicts on their own.

Currently the state is divided into three rural districts which are served by wildlife damage biologists. District #1 includes the northern section of the state and consists of 35 counties, District #2 includes the central section of the state and consists of 33 counties, and District #3 includes the southern section of the state and consists of 39 counties. Each district spans from state line to state line. Private Land Services also has two urban Wildlife Damage Biologists; one in Kansas City and one in St. Louis.

Our rural biologists are handling an average of 25 consults and 15 on-site visits every month. Each rural biologist travels over 3,000 miles per month providing service in their respective districts. The Wildlife Damage Biologists provide conservation programs to various groups as well as fielding multiple media contacts through the year. Internally, Wildlife Damage Biologists play a critical role in training our own employees from the agent training class to clerical staff in handling general wildlife complaints as well as in specialty areas such as bear and mountain lion. Because of their professionalism and vast knowledge in specialty areas, our biologists are commonly tasked with assisting other divisions on research and other special projects. Activities include:

- 2837 contacts (phone, e-mail, mail, drop-in) relating to wildlife damage or nuisance complaints.
- 334 on-site landowner visits to provide services and training concerning wildlife damage or nuisance complaints.
- 35 public programs on trapping and damage prevention.
- Assisting with completion of Missouri's Cable Restraint Manual.
- Assisting with an on-going otter trapping project with Resource Science.
- Continuing involvement on the River Otter Task Force, Nuisance Urban Goose Implementation Team, Feral Hog Task Force and the Mountain Lion Response Team.
- Coordinating activities to minimize Giant Canada goose problems in which 3655 eggs were destroyed and 435 geese were euthanized or relocated.
- Continuing efforts in dealing with urban deer issues in St. Louis and Kansas City.

MDC Strategic Goal #4-Helping Landowners Manage for Sustainable Resources Strategic Issue-Private Land Stewardship Strategic Issue-Increasing Use of Missouri's Forest Resources

The future of many wildlife species and the health of Missouri's natural resources clearly rest with private landowners. The mission of the PLS Division is to help landowners achieve their land use objectives in ways that enhance the conservation of our natural resources. An estimated 4400 landowners in Missouri received on-site conservation planning technical assistance in FY04. This breaks down to approximately nine on-site landowner visits per month for the PLS staff dedicated to delivering fish, forest, and wildlife based conservation applications to Missouri landowners.

Approximately 2200 individuals received written management plans or follow-up recommendations regarding individual habitat implementation plans. MDC has a nationally recognized partnership with the NRCS which provides programmatic funding for many fish, forest, and wildlife related practices. Increased funding from the 2002 Farm Bill has created opportunities for PLS staff to assist landowners with their fish, forest, and wildlife habitat objectives through enrollment in U.S. Department of Agriculture (USDA) funded conservation programs.

Over 800 individual practices were implemented in FY04 by approximately 528 private landowners who received financial assistance through cost share incentive programs delivered by MDC. Conservation practices ranged from prescribed burning and native warm season grass establishment to wetland development, woodland improvement, and control of woody species to reestablish early successional habitats. In total, over \$857,000 was delivered to landowners to complete conservation habitat measures which impacted over 9300 acres.

• MDC Cost share payments in excess of \$49,000 helped landowners construct over 16 miles of fencing to protect woodlands, streams, and associated riparian areas. In addition, over \$71,000 was used to establish alternative livestock watering systems to remove cattle from important aquatic resources.

- The MDC provided over \$121,000 in support of food plot and related conservation seed purchases for distribution to private landowners.
- Over \$31,000 was provided to establish over 338 acres of tree and shrub plantings on multiple private land sites throughout the state.
- Landowners were provided with over \$42,000 in funding to complete woodland and timber stand improvements for increased wildlife benefit and forest health.

The 2002 Farm Bill, administered by the USDA, provides federal funding to address soil, water, and wildlife resource related conservation measures. Although the majority of funds go to agriculturalbased concerns, fish, forest, and wildlife concerns are easily integrated into traditional farm planning. The PLS Division co-locates ten staff members within USDA offices to provide technical expertise and specialized staff to assist with implementation of all or portions of various programs. Fiscal year 2004 provided the following opportunities for fish, forest, and wildlife benefits through USDA funding.

- \$3.2 million allocated to fund the Grassland Reserve Program impacting 10,107 acres of grassland on 120 separate tracts. Eight long-term easements were funded to preserve prairies in Southwest Missouri.
- \$14.75 million allocated to 39 new WRP contracts on 6800 acres.
- \$600,000 obligated for 96 contracts impacting 9164 acres through the Wildlife Habitat Incentives Program (WHIP).
- \$21 million allocated for Environmental Quality Incentives Program (EQIP) for agricultural operations in Missouri. Since 2002, EQIP has provided \$3 million to restore fish, forest and wildlife habitats in Missouri. Approximately 15 percent of EQIP contracts contain provisions to create bobwhite quail habitat.

MDC Strategic Goal #6-Integration of Conservation Principals into Urban Lifestyles Strategic Issue-Connecting with Urban Constituents Strategic Issue-Urban Sprawl and Natural Resources

Missouri's urban areas have been the site of vast changes in recent years with urban sprawl and the increase in demand for green space and conservation education. The PLS Division has six staff members dedicated to urban wildlife and conservation planning activities. Four Urban Watershed Conservationist (UWC) positions, two each in Kansas City and St. Louis metro areas, deliver natural resource technical services at the municipal, county, and regional level. Their mission is to work with communities, urban planners, and developers to make informed land use decisions that enhance the conservation of Missouri's forest, fish, and wildlife resources. Urban Watershed Conservationists established and strengthened relationships with state and federal agencies, local government, private organizations, and citizen groups in a rapidly changing urban/rural interface. The urban biologists deliver conservation programs and are frequently contacted by all formats of the news media on sensational and sensitive wildlife conflict issues. An overview of urban activities includes:

- Providing extensive assistance with project development (i.e., conservation subdivisions, prairie restorations and community/regional planning for conservation).
- Providing technical information and support to groups or individuals who are attempting to influence local development rules/policies for the benefit of natural resources.
- Providing training and assistance with plat review for the St. Charles and St. Louis Soil and Water Conservation Districts.
- Composing a series of six fact-sheets that are now being utilized by the Peruque Creek Watershed Alliance for education and lobbying efforts.
- Assisting Kansas City with development of its master storm water plan KC ONE.
- Urban Wildlife Damage Biologists fielding 100-150 wildlife conflict related calls per month with an average of 10 calls per month requiring on-site visits.

MDC Strategic Goal #7-Effective Conservation Partnerships Strategic Issue-Leveraging Department Funds Strategic Issue-Information Sharing Among and Between Conservation Interest Groups and Stakeholders

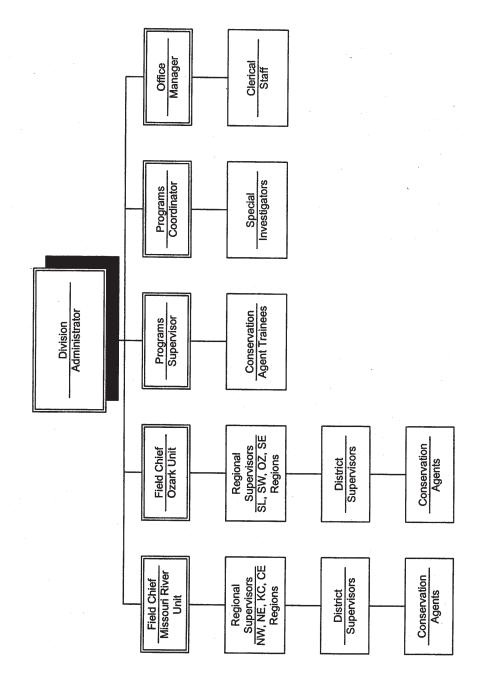
The Private Land Services Division relies on effective conservation partnerships to leverage technical and financial resources against opportunities provided through conservation partners. Examples of successful initiatives in FY04 include increased emphasis on the enrollment of native grasslands in the USDAs Grassland Reserve Program, emphasis in USDA Farm Bill programs on bobwhite quail, expanded partnerships with Ducks Unlimited to restore shallow and emergent wetland habitats in the Missouri River floodplain, and continued emphasis on glade and savannah restoration benefiting many grassland bird species in the central hardwoods region of the North American Bird Conservation Initiative. The contribution from agricultural producers in Missouri has far reaching impacts to many wildlife species. The PLS Division provides an agricultural liaison position to focus on partnerships and outreach to commodity and producer groups, agri-business, and agriculture related industry.

In FY04, the PLS Division increased attention to the task of delivering one-on-one, on the ground technical assistance to Missouri landowners. This effort resulted in cooperative staffing agreements with the U.S. Fish and Wildlife Service, Pheasants Forever, and the National Wild Turkey Federation.

Other partnership activities include:

- Providing staff and habitat management-based exhibits to focus on landowners attending multiple agricultural and commodity conferences.
- Continuing work with the International Association of Fish and Wildlife Agencies on the development of Best Management Practices for regulated trapping.
- Continuing relations with the Missouri Trappers Association in developing the Missouri Cable Restraint Manual and training course to support the new cable restraint trapping season.

Protection Division



PROTECTION DIVISION

Protection Division administers several vital programs within the Department of Conservation. These include wildlife law enforcement, information and education, and fish, wildlife, and forest management services for Missouri citizens. Conservation agents are the official representatives for the Conservation Department in their districts.

The mission of Protection Division is to protect and conserve Missouri fish, forest, and wildlife resources and to serve citizens through a coordinated program of resource law enforcement, education, information and one-on-one contacts.

In 1937, the new Conservation Commission assigned to conservation agents the important role of implementing and carrying out the responsibilities and authority vested in the Commission by the Constitution of Missouri. While Protection Division is charged with the responsibility for resource law enforcement, agents perform many other duties. Protection Division is involved at some level with each of the Department's functional areas.

Protection Division consists of 204 commissioned agents with full peace officer certification and four non-commissioned clerical staff. A special investigation unit conducts major resource violation investigations. Protection and Outreach and Education divisions coordinate the Department's hunter education training program which became mandatory for Missouri hunters in January 1988. Conservation agents also work with outdoor skills supervisors and other Department employees to conduct hunting and trapping seminars, youth hunts and clinics, resource ethics programs, hunting accident investigations and inspections of Department shooting ranges.

Wildlife law enforcement efforts to maintain compliance with the Wildlife Code, and enforcement of other state laws for the safe public use of Department-owned lands, represent a major portion of Protection Division's workload. Nearly equal priorities have also been established for wildlife management and public service programs. Balanced programs of community relations are maintained in assigned counties. Agents conduct programs for public information and education through frequent contacts with news media, youth groups, sportsmen's clubs, civic groups, and schools.

Conservation agents are actively involved with all Department habitat improvement programs. They are trained to provide technical assistance and advice to landowners interested in improving wildlife populations and habitat to their lands. Conservation agents inspect ponds up to three acres in size for which stocking requests have been received, and agents are frequently the first contact for landowners who wish to stock larger impoundments. Many times fish stocking requests generate other discussions between landowners and conservation agents on wildlife habitat management, wildlife law enforcement cooperation, and other MDC issues.

In addition, conservation agents routinely make contacts with landowners who have wildlife depredation or nuisance problems, poaching or trespass problems, and a host of other needs. Protection Division knows that one-on-one contacts with landowners and other citizens of Missouri are essential in maintaining public support for our programs, improving the image of the Department, and getting the "conservation message" to the public. Protection Division uses these formal programs not only to directly improve wildlife/fish habitat, but also as positive community relations tools.

PROTECTION DIVISION STATISTICAL ACTIVITY REPORT

July 1, 2003 – June 30, 2004

I. ENFORCEMENT

A. Resource Contacts	210,989
B. Violations Noted	27,237
C. Written Warnings	4,282
D. Assisted Arrests	7,379
E. Total Arrests	7,796

II. INFORMATION & EDUCATION

6,294
1,132
10,585
5,167
36,182

Conservation agents' enforcement hours include time spent enforcing littering, trespass laws, and special regulations on conservation areas. Resource contacts occur when a conservation agent makes personal contact with resource users for the purpose of inspecting permits, wildlife, or investigating violations of wildlife regulations. Youth or adult meeting numbers result when conservation agents make a personal presentation to groups. Radio and TV contacts include live programs, taped interviews, and public service announcements. Management hours include both time spent on individual landowner contacts, and on wildlife surveys for other divisions.

Training

Because of the nature of their work, conservation agents must have a broad working knowledge of all Department programs and areas of Department responsibilities. New agents are required to have a B.S. degree in Forestry, Fisheries Management, Wildlife Management, Wildlife Conservation, Natural Resources Conservation Law Enforcement Criminal Justice, Agriculture, Education with an emphasis in Science or Biology, or other related sciences, and must also successfully complete 26 weeks of intensive training before assignment to a district. After completion of training, the Missouri Department of Public Safety issues a Peace Officer Standards and Training Certificate attesting that the agent has completed 1,000 hours of POST Certified law enforcement training. The Conservation Agent Training Academy successfully trained and graduated 17 new conservation agents in October 2003.

In-service training is provided annually in accordance with changing resource conditions and law enforcement standards. All licensed peace officers and reserve officers must successfully complete a minimum of forty-eight (48) hours every three years of continuing education to maintain their peace officer license. Each officer shall complete a minimum of four (4) hours in all four (4) core curricula areas. The core curricula areas are identified as: Interpersonal Perspectives, Technical Studies, Skill Development, and Legal Studies. In addition, every peace or reserve officer with the authority to enforce motor vehicle or traffic laws shall obtain at least one credit hour of continuing education training regarding racial profiling each calendar year.

Hunter Education

Hunter Education certification is required for purchasing any type of firearms hunting permit for persons born on or after January 1, 1967. This creates a big demand for hunter education classes with Missouri having nearly one million hunters. Conservation agents work with Outreach and Education division personnel to coordinate hunter education courses in all 114 counties of Missouri.

Hunting Accident Investigations

All hunting accidents are investigated by trained, certified personnel from Protection and Outreach and Education divisions. Detailed investigations provide a lot of information that point to the causes of incidents. This allows the Department to customize the hunter education program to address recurring causes and this has contributed to the downward trend in hunting incidents. A hunter who is found to have inflicted injury to someone else through a careless act can have their hunting privileges suspended for up to five years. Seventeen persons had hunting privileges suspended under these provisions this past year.

Operation Game Thief

Operation Game Thief continues to be a successful means for anonymous callers to report poaching, and also be eligible for a reward. Last year, Operation Game Thief (OGT) produced 70 court cases completed from 438 telephone calls and rewards totaling \$9,200.

The Cole County Sheriff's Department has been answering OGT calls after normal working hours, on weekends and on holidays since the fall of 1993. Both the quality of violation information elicited from callers and the speed with which that information is relayed to the field has been much improved. This increase in efficiency seems to be enhancing the entire OGT program. We are finding that trained law enforcement professionals are better able to "pull" more information from callers by knowing what questions to ask.

Revocations—Interstate Wildlife Violator Compact

Missouri is the Chair of the Interstate Wildlife Violator Compact. The Compact is a legal organization of the wildlife agencies of 19 member states that agree to reciprocally honor each other's revocations/suspensions of hunting, fishing and trapping privileges. Currently, Compact member states are: Arizona, California, Colorado, Georgia, Idaho, Indiana, Iowa, Maryland, Minnesota, Missouri, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming. This compact benefits wildlife resources by being an additional deterrent to violating. It benefits participating states by relieving enforcement personnel from having to bond or incarcerate suspected violators, and it relieves non-residents from the expense and embarrassment of incarceration and bonding. During this fiscal year, 943 persons had privileges revoked through the provisions of the Interstate Wildlife Violator Compact.

Suspensions are based on either single major violations, or an accumulation of several violations such as:

- 1) Multiple counts of illegal take/possession of big game.
- 2) Illegal take/possession of big game, and other associated violations.
- 3) Use of artificial light to take big game (alone or combined with associated violations).
- 4) Unlawful sale/purchase of wildlife.
- 5) Gross over—bag (2X daily limit) of any wildlife.
- 6) Willful destruction/wanton waste of big game.
- 7) Unlawful take or possession of endangered species.
- 8) False statement/license fraud (multiple counts).
- 9) Felony wildlife violations.
- 10) Purchasing or exercising the privileges of a license while under suspension.
- 11) Habitual violator (conviction of wildlife violations in multiple violation incidents, in one or more states participating in the Compact.

Revocations for Cause

On January 1, 2000, a computerized system went on-line to track and quantify severity of multiple wildlife violations. Each wildlife violation conviction that occurs after January 1, 2000 automatically triggers Department computers to "read" the violation history of the violator for the five-year period previous to the conviction date. Based on severity of violations and timing of accumulated violation convictions, the violator is notified that the Conservation Commission is considering suspending their hunting, fishing, and trapping privileges and is then afforded an opportunity for an informal hearing. Pending results of the informal hearing, a recommendation to the Commission may be made to suspend and the length to suspend.

Privilege suspensions normally range from one to five years, and in extreme cases privileges can be revoked for life. During the 2004 fiscal year, 109 privileges were suspended by the Commission for wildlife violations.

Revocations—Child Support

State law also mandates that we suspend privileges for persons who are delinquent on child support payments. During fiscal year 2004, 496 persons had their privileges suspended for failure to comply with child support laws.

Hunting Method Exemption Program

The Missouri Wildlife Code provides for the director to authorize special exemptions to physically disabled persons allowing them to hunt and take wildlife by methods not otherwise legally permitted. This program (Hunting Method Exemption Program) is administered by Protection Division. Through this program, physically disabled people can receive exemption from legal hunting methods as long as their disability prevents them from hunting by using prescribed methods. During this fiscal year, 3,192 hunting method exemptions were issued.

Share the Harvest

The Missouri Department of Conservation has reason to be proud of the effort put forth to make Share the Harvest a success. To illustrate, in 1994, seven programs were authorized which involved eleven deer processors and eight charitable organizations. That year, 236 successful hunters donated more than 3,200 pounds of venison. Since that time, the program has grown tremendously and many more needy families are receiving venison from hunters who want to share their successful hunt.

During the 2004 fiscal year, approximately 4,000 hunters donated 177,435 pounds of venison to needy Missourians. Hunters donating venison to the program pay for the processing and tell the processor how many pounds of meat they want to donate. Hunters who wish to donate their entire deer may receive a \$35 reduction in the price of processing which is paid to the processor by the Missouri Conservation Federation. The funds for the payback program are derived from a unique partnership between the Missouri Department of Conservation, the Missouri Conservation Federation, Shield of Shelter Insurance, and Bass Pro Shops. In addition, MDC personnel, CFM members and local sponsors in many areas solicit local funds to augment the \$35 from CFM. In many instances that results in no-cost processing to the hunter on a whole deer donation. Approximately \$40,000 was pledged in this manner on a local basis during the fiscal year. The Missouri statute covering Share the Harvest was amended to allow Missouri Department of Agriculture Inspectors to authorize processors to participate. This may help add additional processors to join the program.

Aquatic Systems Terrestrial Systems Resource Science Administrative Center Chief Coordinator Resource Science Division Organization **GIS Services** and Support Resource Science Division Administrator Liaison Resource Science Policy Support Science and Big River / Wetlands Systems Field Station Office Manager Environmental Agricultural Systems Field Station Kirksville Grasslands Systems Field Station Health Forest Systems Field Station West Plains Cape Girardeau Resource Science Field Chief Clinton Evaluation and Management Support

RESOURCE SCIENCE DIVISION

Resource Science Division RSD, established in fall 2002, integrates key research, survey, and monitoring functions previously separated among the Forest, Fisheries, Wildlife, and Natural History divisions and Policy Coordination Section. Our mission is to:

Provide the science-based information needed to conserve, appreciate, and effectively manage the living resources of Missouri.

The division retained the historic strengths of the Forest, Fisheries, Wildlife research, Natural History, and GIS elements that were consolidated when RSD was established, and field delivery has been greatly enhanced as well. An integrated focus in RSD is organized around five systems and functions rather than traditional disciplines. These include a Terrestrial Systems and an Aquatic and Wetland Systems group as well as Resource Science groups delivering services for Environmental Health, Science and Policy Support, and Management Evaluation and Support. In addition, Resource Science Division is dedicated to greater delivery of management assistance through four field stations focusing on Grasslands Systems (Clinton), Big Rivers/Wetlands Systems (Cape Girardeau), Forest Systems (West Plains), and Agricultural Systems (Kirksville).

Our division's primary role is to provide information that leads to improved management and policy decisions, ecological knowledge, and public information, all in a constantly changing ecological and sociological landscape. Obviously communicating this information is the key. During FY04, RSD staff ensured public contact through more than 300 radio, TV, newspaper, and magazine contacts, 28 popular articles, 84 special events, and 125 presentations to constituency groups. On the technical side, 160 presentations outside of Missouri and 161 in state, 57 workshops, and 45 technical publications resulted from more than 150 active research, survey, and monitoring activities. This was accomplished through cooperative projects with eight universities and state and federal agencies and was supplemented by nearly \$1 million in outside funding and more than \$6 million in partner support.

The primary objective of the Resource Science Division is to establish a nationally recognized, science-based model for conservation by:

- 1. Ensuring ongoing development of a comprehensive and integrated understanding of Missouri's living resources and their values to society,
- 2. Using accumulated knowledge to inform and recommend conservation actions,
- 3. Evaluating the biological and social impacts of conservation actions, and
- 4. Reporting emerging knowledge of Missouri's living resources.

Resource Science Division provided national leadership during FY04 in research on trap standards and emerging methods such as cable restraints, mourning dove harvest management, coordinated bird monitoring, waterfowl harvest strategy, communicating invasive species challenges, Missouri River public use assessment and other human dimensions research and applications, advancement of adaptive resources management, and support for Comprehensive Wildlife Strategy through active application of Ecological Classification System, new GIS layers, and substantial additional Heritage information (more than 2000 records submitted in the last year). The challenges of contemporary natural resource management also were evident in a number of "science hot rocks." Biological as well as social implications were predominant as information was gathered and applied to policy on otter/fish issues in Ozark streams and small ponds, handfishing, and waterfowl refuges.

Key areas of emphasis for research and management evaluation include invasive species, large river dynamics and habitat rehabilitation, wetland management, stream restoration evaluation, fire management in forests and prairies, reservoir catfish assessment, oak and shortleaf pine restoration, CAFO evaluation, assessment of PL566 impoundments on instream flow, agricultural cost share practices, pallid and shovelnose sturgeon demographics and habitat use, and fish and herpetofauna use of floodplain habitats. On-the-ground work out of the RSD field unit also included support for construction of key cave gates.

Division emphasis areas, tied directly to the Department's strategic plan, focus on 1) population management, 2) ecological processes, 3) large scale conservation planning, 4) management evaluation, 5) human dimensions, 6) database management and information transfer, and 7) accountability/business management. Each year, work plans are developed in the context of "how will this contribute to achieving desired outcomes?" Following are selected FY04 accomplishments among RSD emphasis areas:

Population management: To manage for, and when feasible, restore viable populations of plants, fish and wildlife compatible with the ecological capability of the land and balanced with the desires of resource users and the public.

- A paradigm shift in deer population and harvest management is in progress. Innovative regulations on public and private lands, delivered in a simplified manner, and focused on key deer harvest challenges have occurred during the last year. Antler point restrictions in pilot counties and a focus on harvest of antlerless deer are designed to increase our capacity to manage Missouri's deer population. Pilot efforts with telecheck show promising advancements in convenient and efficient harvest tally. Additionally, no-cost permit requirements for private landowners greatly enhance our ability to assess the impact of regulations changes.
- In a collaborative effort with the University of Missouri and Resource Science Division, a manuscript entitled "Using Fecal Glucocorticoids for Stress Assessment in Mourning Doves" has been accepted for publication in the avian journal Condor. A noninvasive tool for monitoring stress was specifically validated for mourning doves. The new tool has been used in the previous radio transmitter implant project, and will be used to help monitor the stress effects related to lead poisoning.
- Information about the impacts of trichomoniasis on mourning dove populations was collected during 1998-2003 using 4,052 hunter-killed doves and found 226 (5.6%) tested positive. Objectives were to detect changes in annual presence of the disease and to evaluate a volunteer program to monitor trends on a state-wide scale. During the 6-year study we received 161 credible reports directly related to trichomoniasis; these were directly or indirectly related to recreational bird feeders in urban/suburban locations. Results of monitoring hunter-killed doves proved problematic for several reasons. Results of our hunter-killed sampling effort were below most previously reported estimates for mourning doves. Our results also indicate that asymptomatic carries in one segment of the population may provide a mechanism for spreading the disease to less resistant segments of the population.
- Investigation into mourning dove lead exposure showed a great deal of variation in the retention of lead pellets at < 48 hours post-treatment. Birds with few pellets have a similar chance of dying as birds with many pellets. A dramatic decline in body weights for all treatments occurred at 7 days post-treatment. It appears that an acute toxicosis hypothesis may help explain why few mourning doves with ingested Pb pellets have been sampled in hunter bags. Doves with ingested lead pellets may likely not return to managed shooting fields because they are quickly feeling the effects of lead poisoning before succumbing.
- The first annual MDC hellbender survey week on the Jacks Fork and Current Rivers was conducted to determine possible long-term monitoring sites as well as assess hellbender status in selected stretches of these rivers. Using mask and snorkel, surveyors overturned rocks in suitable habitat. All hellbenders observed were sexed, measured, and checked for PIT tags (Passive Integrated

- Transponder). In all, 21 locations were searched (7 on the Jacks Fork and 14 on the Current River), and hellbenders were found at 3 sites on the Current River.
- Deer sampling for Chronic Wasting Disease (CWD) at firearms check stations went off without a hitch thanks to the efforts of Regional staff and the assistance of MDC staff from Jefferson City and Columbia. Samples were collected in 30 counties, and a change in the sampling protocol saved time and money yet maintained the needed level of quality—and as importantly, reduced the time volunteer hunters needed to spend to assist with the collection efforts. No CWD was detected among the 6,000 samples sent to the USDA approved lab in Wyoming.
- In 1991, due to declining harvest numbers, Missouri designated the plains spotted skunk (a.k.a. civet cat) as endangered, and its harvest season was closed. A survey was conducted to determine the statewide distribution. Several public survey techniques employed to solicit sighting information from hunters, trappers, farmers, nature enthusiasts, university staff and natural resource personnel statewide. During the 9-month survey period, 502 sightings were reported: 3 (0.6%) were verified to be spotted skunks, 146 (29.1%) were reliable, 211 (42.0%) were unconfirmed, and 142 (28.3%) were unusable. The 333 usable sightings were reported from each of the eight management regions: Southwest (54), Northwest (48), Ozark (47), Kansas City (40), Southeast (39), Central (39), St. Louis (34), and Northeast (32). Using reliability of sighting information, year of observation, and proximity to other sightings (i.e., "sighting clusters"), 83 "high priority" sighting locations were identified to guide future field survey efforts.
- The upper reaches of Roubidoux Creek, West Piney Creek, Big Piney River, south prong of Jacks Fork River, Osage Fork of Gasconade River, and Maries River were surveyed to see if fish populations were in trouble. We found the numbers and sizes of sport fishes were less than expected on the Roubidoux and West Piney. Ages of the fish indicated smallmouth bass and rock bass were dying at a high rate in these two streams. Problems in the fish populations did not seem caused by habitat, angling, drought, or environmental conditions, but were consistent with predation by river otters. The extent of the otter impacts in streams is largely unknown, but likely involves small streams with low flows, especially in winter, and with few pools deeper than 5 or 6 feet. Solutions include maintaining a high harvest rate for otters and protecting or restoring stream habitat quality (desirable base flows, reduced gravel load, and adequate pool depths). The primary management question—"Can we remove enough otters via targeting to make a population impact on fish size structure over time?" was addressed by coordinating fish and otter monitoring, removal of otters via legal trapping, and evaluation of the feasibility of out-of-season otter removal by MDC trappers.
- Ozark cavefish monitoring completed the 2-year survey of 12 of the 13 active cavefish sites and documented occurrence of the species in 4 of the 12 sites. Although this may seem like a low degree of success, the relative scarcity of the species and fluctuating water levels have a strong influence on the likelihood of discovering cavefish at a particular site. Higher flows seem to increase the odds of seeing cavefish by flushing them into cave stream mainstems, but higher flows also inhibit our ability to survey many caves.
- The MDC Crayfish Crew completed field sampling for the study "The Distribution and Selected Habitat Associations of the Crayfish, Orconectes williamsi in the Upper White River Drainage of Missouri." Williams' crayfish is listed as "critically imperiled" in Missouri, "imperiled globally", and as a "species of special concern" by the American Fisheries Society. It is restricted to the upper White River drainage of Missouri and Arkansas; before our study it was known from only 9 sites in Missouri. In addition, populations of the rarer Meek's crayfish were discovered in 2 stream segments. This species was previously known from only 3 other stream segments in MO. The two species were found together in only 3 streams.
- Fisheries managers have traditionally done catfish age and growth work using extracted pectoral spine sections. New information about the use of catfish otoliths was presented at a 2-day workshop. A recommendation for using otoliths in place of pectoral spines was because annuli on otoliths were

- easier to identify than annuli on pectoral spine sections. The big drawback of using otoliths, however, (having to sacrifice the fish to get the otolith) was definitely not worth the effort to gain a bit more accuracy.
- The Big Rivers\Wetlands Field Station completed year 1 of a 3-year cooperative study of Pallid Sturgeon demographics in the Middle Mississippi River (MMR). Over 10,000 hours of gill net, 400 hours of trawling, and nearly 300 hours of trotline effort was been completed. Nearly 4,000 Shovelnose Sturgeon were captured, averaging about 4 Shovelnose Sturgeon per hour of effort. Forty-one Pallid Sturgeon were captured, PIT tagged, and released in the MMR. Many of these captures included hatchery reared and released fish as evidenced by micro-tags or notable markings.
- As part of the MDC/RSD Resource Assessment and Monitoring program (RAM) (which surveys physical habitat, fish and benthic macroinvertebrate community composition, and the chemical characteristics of water, sediment, and fish tissue samples of wadeable streams throughout Missouri), recent taxonomic analysis of some macroinvertebrate samples has revealed a chironomid taxon, Paraboreochlus, that is a new record for Missouri and an uncommonly encountered chironomid in North America.

Ecological processes: Increase our understanding of the processes that determine habitat conditions for native and introduced animals and plants.

Abiotic processes that "drive" systems continue to be the focus of landscape scale investigations. These investigations lead to greater understanding of how restoration (e.g., stream banks, wetlands, hardwoods, etc.) and management (e.g., Missouri River, wetlands, fire in timber and grasslands, etc.) can re-establish/mimic natural processes. Specific examples of FY04 progress include:

- A study was initiated in July 2003 as the first step in developing methods that forest managers can use to measure oak decline in forest stands. The objective was to determine what sampling intensity (how many plots? trees?) is required to make a reasonable estimate of oak decline presence. Several indicators of tree vigor and fungal and wood borer attacks were measured on red oaks along six 625m-transects positioned on MOFEP control sites.
- MDC and U.S. Forest Service North Central-Forest Inventory and Analysis (NC-FIA) released the results of the first 3 years of the 5th inventory of Missouri's forest resources. Since 1989, total forestland area has increased by a little over 700,000 acres. As with every inventory since 1947, the survey showed that the oak-hickory type predominated and comprised more than 70% of all forested land. Softwoods comprise approximately 4% of Missouri's forested acreage. Pinyon/juniper (primarily eastern red cedar) is the primary softwood component by acreage, although shortleaf pine comprises the majority of the volume. Between 1989 and 1999-2001, the net volume of all live trees on timberland increased by 29 percent, from 13.8 billion cubic feet to 17.8 billion cubic feet.
- Songbird use of former cropland in the Missouri River floodplain was monitored at 2 sites from December 1999-February 2004. Breeding bird species richness in emerging forest land increased from 17 to 24 from 2000 through 2003 as vegetation structure became more complex. Several shrubsapling species increased, including Field Sparrows, Common Yellowthroats, Indigo Buntings, and American Goldfinches. Abundance of Orchard Orioles, an open woodland nesting species, increased substantially during the 4th year after planting. However, grassland species, such as Grasshopper Sparrows and Dickcissels generally decreased, except where a cover crop of redtop grass inhibited other herbaceous regrowth. Abundances of open habitat species, including Horned Larks and Killdeer, declined. Nests of 23 species were monitored during 2001-2003. Brood parasitism rates by Brown-headed Cowbirds were low relative to other central and northern Missouri sites. Missouri river bottomlands provide habitat for a variety of species of conservation interest, including declining grassland species such as Henslow's Sparrows and Grasshopper Sparrows. Nest predation is comparable to other habitats, and cowbird parasitism levels are substantially lower than other early successional habitats, suggesting that many breeding species may be self-sustaining

- An investigation into the effects of grassland management practices on preferred grassland bird diet items and on the macroarthropod community of grasslands was initiated. During the breeding season of 2003, macroarthropod abundance was measured on 3 management treatments (prescribed burning, livestock grazing, and reference) at Taberville Conservation Area in southwestern Missouri. Significant differences were observed over seasons for average abundance of Coleoptera and Homoptera. Mean abundance peaked during the first sampling period (6 June) for Coleoptera and during the second sampling period (30 June) for Homoptera. Information on grassland food abundance will help managers optimize the timing and type of management activity on areas designed to conserve grassland birds.
- Staff from RSD and Wildlife Division relocated seeds of the federally threatened plant geocarpon (Geocarpon minimum) onto MDC land in Cedar County. Bluff Springs Conservation Area contains a portion of a sandstone glade complex that lies predominantly on private land to the west of Bluff Springs. Two subpopulations of geocarpon have been known from the private land since their discovery during a Department survey in 1989. No geocarpon has ever been documented at Bluff Springs C.A. after several searches, although apparently suitable habitat exists there.
- The Riparian Ecosystem Assessment and Management Project (REAM) was completed. The North Missouri study of forested areas along streams was initiated in 1992 to help Department forests, fisheries managers, and wildlife managers understand how these riparian forests function and to provide the information needed to develop riparian forest management guidelines. The multidisciplinary study of flora and fauna in riparian corridors will provide information needed to recommend riparian forest management practices that meet multiple objectives for biota and wood products.
- A study of larval fishes in sand island habitats in the Missouri River was initiated to investigate the relationship between the flow regime and instream habitats. The primary limiting habitat is assumed by many biologists to be shallow water habitat, which was abundant before the river was engineered to favor navigation. The first step is to understand which larval fishes are using habitats having different configurations. Two graduate student studies are concluding on this topic. The information will be used to inform several of the questions river managers have about shallow water habitats and their management.

Large scale planning: To ensure all planning and program efforts are well coordinated within and outside the agency, are based on solid science, and include evaluative measures.

Resource Science Division staff provided technical services and information to support large scale resource planning during FY04. Expert knowledge and technical applications through Geographic Information Systems (GIS) were applied to inventory, assessment, and monitoring at state, regional, and area scales.

- RSD participated significantly in developing a Comprehensive Wildlife Strategy, which will identify the most promising conservation landscapes in Missouri. An opportunity analysis, using data layers on species of conservation concern and their habitats, was conducted. This "blueprint for conservation" is necessary so that Missouri (and state fish and wildlife agencies across the nation) can obtain State Wildlife Grants, a new source of federal funds for comprehensive wildlife conservation.
- MDC and other partners initiated development of a bat conservation plan for Missouri. Elements of the plan will be integrated into the Comprehensive Wildlife Strategy. Other states' bat plans, as well as the North American Bat Conservation Partnership Strategic Plan, and a number of bird plans will be reviewed to develop an effective plan framework. Key features will include ecological considerations for the different species that occur in Missouri, strategies for population monitoring, recommendations for management of caves and mines, recommendations for management of surface habitats, research needs, urban bat issues and public health, partnerships, and education.

- New mourning dove population models are being constructed using existing historical data to help make more informed harvest management strategies and to illustrate which pieces of new population information are most critical. To help meet these needs, a national pilot mourning dove banding program was established in 28 states, including Missouri, to obtain band reporting rates and harvest rates for use in the population models, which in turn will be used to make decisions about future changes in hunting regulations. During July and August, Wildlife Division field staff banded 1174 mourning doves on 14 conservation areas. The initial collaborative effort between Wildlife and Resource Science Divisions was extremely successful; almost every banding station reached or exceeded their banding quota, data were successfully managed at the field level, and banding schedules were submitted to the Bird Banding Laboratory ahead of schedule.
- A coalition involving MDC, MODOT, the Federal Highway Department and the Missouri Highway Patrol has been developed to address Animal-Vehicle Accidents on Missouri roadways.
- In support of the assessment of Missouri's trout stream habitat, water and physical attributes of trout streams and the applicability of various trout management options (wild trout, put-and-grow, put-and-take, or delayed harvest) were assessed. The project succeeded in identifying streams with the greatest potential to sustain trout populations. The result was a long-term roadmap for trout management.
- In support of the completion of the statewide catfish management plan, RSD staff participated in the Quality Catfish Committee, which produced a statewide plan entitled Managing Missouri's Catfish. Missouri anglers were informed of existing catfishing opportunities and MDC's efforts to enhance catfish management and were engaged in the development and implementation of shared catfish management strategies.
- New aerial photography, flown during summer 2003 was used to obtain the second generation of digital orthophoto quarter quadrangles (DOQQs) for Missouri. The imagery is leaf-on vegetation, 1meter resolution, and color infrared. RSD staff teamed up with several state and federal agencies to enhance the data collection and expand the coverage area of the existing National Agricultural Imagery Program (NAIP) to obtain complete coverage for Missouri. Most of the 1.4 terabytes (that's roughly 2,098 CDs) of raw data was assembled by 1:24,000 scale U.S. Geological Survey quadrangles and compressed for distribution. This multi-agency partnership brought a higher quality product at a lesser cost.
- A \$241,000 grant proposal, prepared by Matt Combs, was awarded by EPA to participate in a demonstration of randomized-design for assessment of wadeable rivers and streams. This grant is an ambitious effort by EPA to demonstrate the utility of probability-based sampling programs to other federal agencies, the legislature, and states not currently conducting probability based monitoring of environmental quality. The protocols used are identical to MDC's Resource Assessment and Monitoring (RAM) Program protocols, except that fish are not being sampled. Information about macroinvertebrate community composition, physical habitat, and water quality will be collected. This project will benefit the RAM program primarily through the analysis and reporting process, but will also help to generate additional information about environmental quality and distribution of marcoinvertebrates across Missouri.

Management evaluation: Ensure that results of management and policy actions are measured and appropriately linked to resource-related outcomes, budgets, and staff time.

Highlights from initial field station activities resulted from an increase from five to 26 staff permanently assigned to field stations from July 2003 to June 2004. Emerging collaboration with resource managers was assured through five field station workshops during which more than 200 management issues were identified, and 20 key management evaluations were initiated (in addition to the 15 already in place). In addition to MDC participation, involvement included four universities, six federal agencies, two other state agencies, two NGO's, and two counties.

Priority information needs identified by managers at field station workshops were addressed through literature review, additional workshops, committees and working groups, existing studies, and newly developed management evaluations.

- Reviews of existing literature provided immediate to managers' uncertainties about plant and animal management. Questions about vegetation life histories and management were compiled for Reed Canary Grass, bottomland hardwoods, and wetland seed banks. Faunal literature work included freshwater bryozoans, walleye, smallmouth bass and otter conflicts, and black bass recruitment in White River reservoirs. Background on management techniques included streambank stabilization techniques, active vs. passive wetland management, horse trail design, and vegetative buffer strips.
- Coordination of management evaluations already in place included those for fish and wildlife species (sturgeon monitoring, crappie and flathead catfish exploitation, wild turkey stocking in Southwest Missouri, walleye population dynamics, and paddlefish tag retention). Habitat management evaluations included those for grassland/grazing at Reform CA, vegetation monitoring on Lower Hamburg Bend, edge feathering effects, Ted Shanks CA tree planting/survival, Loess Hills fire history, and Ozark cavefish recharge area.
- Based on field station workshops, manager/resource science teams collaborated to develop management evaluation proposals that will be reviewed, budgeted, and initiated in FY05. Invasive plants species work will be initiated for Reed Canary Grass and sericea lespedeza. Restoration and management techniques to be evaluated include streambank stabilization, restoration of bottomland forest, large river restoration of side channels, sand islands, and shallow water habitats through dike alteration. Vegetation enhancement and management for oaks, shortleaf pine, the effects of prescribed burning on timber quality, riparian corridor reforestation, patch/burn grazing, and riparian grazing also will be evaluated. Agriculture incentive programs in general and for streambanks specifically will be assessed. Species specific evaluations will include pallid sturgeon, juvenile and larval fishes associated with sand islands, and catfish in reservoirs.
- Collaboration on management evaluations included resource managers in the Department as well as partners from other resource agencies, NGO's, and universities. Participation from field station staff in work groups and planning committees focused on the Missouri Ecotype Project, Quad State Sericea Working Group Instream Flow Policy Task Force, and Competitive Angler Work Group. University contacts for specific projects included Southeast Missouri State, Southwest Missouri State, University of Missouri, Central Missouri State, Truman State, University of Florida, and several other academic partners. A number of state and federal resource partners included the U.S. Forest Service, Natural Resources Conservation Service, U.S. Geological Survey, Corps of Engineers, and Missouri Department of Natural Resources.

Selected highlights from field station activities include:

- A comprehensive survey of aquatic communities was initiated for Big Oak Tree State Park. This survey (funded by Missouri DNR) was the first of two planned for the park. Nearly 1560 fish (31 species) and turtles (1 species) were captured. The fish community was dominated by centrarchids, especially Bluegill (Lepomis macrochirus), Warmouth (L. gulosus), Green Sunfish (L. cyanellus), and Black Crappie (Pomoxis nigromaculatus). Tolerant, widespread, large river and lake species dominated the community. Overall, lowland fish species were uncommon (e.g., Banded Pygmy Sunfish (Elassoma zonatum) and Slough Darter (Etheostoma gracile). Isolation of the park and disrupted hydrology has negatively affected the aquatic community of this area.
- The second of a 3-year Pallid Sturgeon demographics and habitat use study, funded by the U.S. Army Corps of Engineers in cooperation with Southern Illinois University-Carbondale and the Corps' Waterways Experiment Station, was completed. Nearly 60 adult and sub-adult Pallids have been captured so far in the study. The Missouri trawl was used to capture numerous larval sturgeons, many of which were tentatively identified as Pallids. Some larval sturgeons were

- captured over the floodplain. Selected marked sturgeons were tracked using sonic technology.
- The second of a 6-year study to evaluate the impacts of a navigation project at Establishment Island on the Middle Mississippi River (MMR) was completed. This project is funded by the U.S. Army Corps of Engineers. Pre-construction data are being collected at this time. BR/W field station staff also were heavily involved in the development of the Schenimann Chute HREP (rehabilitation) project on the MMR. Seven years of pre-construction data will be instrumental in evaluating the biological effects of the proposed project.
- Studies evaluating spot spraying of Sericea Lespedeza with "Remedy" at one ounce per gallon of water yielded some interesting results. Nearly 100% control of treated stems occurred as expected, but more interesting was an apparent affect on the seed bank. Only eight of fifty samples in the "Remedy" treated area contained seed, while in areas that were only mowed, 43 of 50 samples contained seed.

Human dimensions: Provide and promote the use of human dimensions information in the management decision process.

Human dimensions information will provide insights into how to balance resource objectives with public use. RSD staff have taken a lead role in providing support for projects designed to solicit, encourage, and promote public response and feedback to ongoing and proposed policies. Increased emphasis on public outreach, personnel interaction, and a greater value placed on the human component in resource issues will inform biological and social tradeoffs. Projects were developed and implemented to solicit, encourage, and promote public reactions and feedback to ongoing and proposed policies in efforts including, public deer forums, Missouri River public use, CRP and WRP contract holders, horse use on public areas, and handfishing.

- A Human Dimensions Working Group, a core of professionals who are recognized both intra as well as inter-divisionally as an accessible resource, was re-established. An additional human dimensions specialist was hired. The Human Dimensions Working Group, which coordinates activities between Policy Coordination, the University (Rural Sociology, and Resource Science promotes greater visibility, outreach, cooperation and communication.
- January 3, 2004 was the starting date of the 2004-2005 Missouri River Public Use Assessment. On this date, over 50 interview clerks from St. Louis to Gavins Point Dam in South Dakota began asking exiting users of the Missouri River about their activities and amount of time they spent doing each activity. These clerks will continue contacting visitors along this 811-mile stretch of the river through January 28, 2005.
- During March and April of 2004, Environmental Services (Environmental Health Program) traveled to 7 regions to conduct fish kill and pollution refresher training for 220 fisheries and protection staff. Pollution types and frequency of fish kills in the state were reviewed. Also discussed were investigation procedures and the process of how the State of Missouri, MDC, and DNR use Wildlife Code and Clean Water Law to resolve fish kills and water pollution. Participants were given reference materials and the electronic files needed for fish kill documentation.
- Reforestation of ecologically sensitive floodplain lands will depend greatly on private landowners. MDC and MU researchers developed several competing models that can help public agencies to predict landowner adoption of reforestation cost-share programs. Akaike's Information Criteria (AIC) can be used to rank the models, based on data from a mail survey of floodplain landowners along the Missouri River. Results show that landowners who already have forested land, have already interacted with forestry agencies and are of middle age and/or family tenure status are the most likely to adopt. Such landowners may enroll up to 13% of Missouri River floodplain land.
- The Truman Lake volunteer angler catfish creel was initiated in 2003. This effort produced some valuable information which will be helpful as we continue to develop methods for sampling and assessing a large reservoir catfish fishery in Missouri. A total of 97 anglers signed up to participate

in the volunteer creel, but only 41 (42%) actually turned in diary forms. These anglers turned in 360 diary forms which accounted for 765 total catfish angler trips at Truman. Anglers provided catch and harvest data for 2016 total catfish. Sixty-nine percent (69%) of the catfish reported were blue catfish. It was alarming to note that 47% of all the catfishing trips recorded on diary forms were rated "poor" at Truman in 2003.

- Pilot catfish sampling in 2002–2003, using low frequency electrofishing gear, captured large numbers of catfish, but blue catfish length frequencies were skewed towards smaller sizes. Additional gear types, along with an ongoing volunteer angler creel at Truman will be evaluated in the proposed 4-year study. The study also targets flatheads and channel catfish. The majority of the field work will be done at 55,000-acre Truman Lake, but sampling methods and assessment strategies identified in the project should be applicable to other large Missouri reservoirs.
- Resource Science human dimensions staff were used by other divisions and agencies; thus, promoting the goal to increase the influence of Human Dimensions considerations in all management and policy decisions. Projects developed and implemented spanned divisions and other agencies ensuring greater cooperation and opening lines of communication. Examples included aquatic education evaluation (Outreach and Education), marketing of fishing to minorities (Fisheries Division), creel and special issue surveys such as catfish, handfishing and trout (Fisheries), aquatic nuisance species marketing (Fisheries), deer regulations (Wildlife), urban deer Survey (Wildlife), urban tree care (Forestry), and White River Public Use Survey (Policy and Coordination).

Information transfer: Manage, share and transfer data collected in a useful, achievable and easily obtainable format for all MDC conducted or funded projects.

Primary emphasis on information transfer during FY04 was through electronic media (web pages, database management, electronic documents, and infrastructure), internal workshops or presentations, and public contact. Increased emphasis is important because MDC invests considerable resources each year collecting information. In the past, much information was not adequately archived nor made readily available.

Electronic media

- RSD promoted a storage area network (SAN) with 1 terabyte of storage space. The SAN provides the infrastructure (storage space) necessary to advance use of electronic media.
- Installation of Sharepoint software will allow us to archive important documents in a way that facilitates search of document contents. Sharepoint allows users to share information, collaborate on documents, and acquire knowledge directly over the intranet. Sharepoint will also serve as our online archive for documents currently sitting in file cabinets. The "Googlelike"search engine allows for look-ups by author, title, keyword, and even full context document searches. Users can receive e-mail alerts when existing information is changed, or when new information or documents are added.
- Since 1959, MDC staff from Forestry Division have dutifully collected information on each year's oak mast crop-this information is useful in looking at potential for oak regeneration and in providing a perspective on how wildlife species dependant on acorns might fair in any given winter. And since 1959, annual summaries of this information have set in the file cabinet, or ask the times changed on a disc or CD-but they were only available if someone took the time to call and someone else took the time to get the information from a file. These 40 years of oak mast data were incorporated into an on-line data set on the MDC Intranet at: http://intranet.mdc.state.mo.us/ResourceScience/Terrestrial/MASTSURVEY/Map.html
- Development of MDC meta allows us to archive all metadata and data collected during of monitoring, management evaluation, or research projects.

- Installation of a scanner and OCR technology that will allow us to scan existing paper documents.
- Availability of MOFWIS, SILO, mast survey, and deer and turkey harvest data on the intranet these databases are served up dynamically rather than through static web pages.
- Continued expansion of the Resource Science intranet site including publication of Resource Science Highlights.

Internal workshops/presentations and popular writing

- Biological Workshops (Cave/Karst, Amphibian and Reptiles, Impoundment Fisheries etc.)
- Techniques and methods workshops (Share Point, MDC Meta, Data Intimacy) GIS Arc View
- Commission meetings, expanded Staff Meetings, Regulations Committee or Unit Chief or divisional or regional Meetings (Forest Pathology, Deer Strategy)

Public Involvement and Public Information

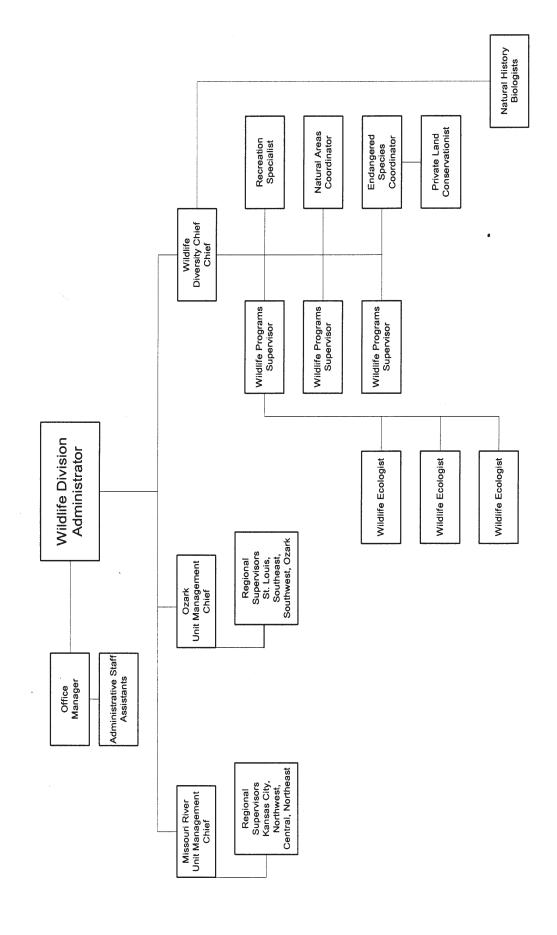
- Thirty public meetings were held to determine public opinions about deer management. More than 4,000 people attended these meetings and written comments were received from almost 3,000 individuals. In addition, a survey of randomly selected landowners and deer hunting permit buyers were asked their opinion about deer management. This information, along with biological information collected from check stations, was used to develop pilot deer regulations in 29 counties.
- Catfish plan public meetings resulted in a finalized catfish management plan. Almost 200 people attended 6 public meetings in various locations across the state. Public comments from these meetings were used to finalize the catfish management plan.
- Twenty-nine surveys were conducted or were begun in FY04. These surveys include surveys to assess hunting and fishing pressure or timber harvest, surveys to better understand constituent attitudes, surveys to estimate public/recreational use, and surveys to monitor wildlife populations.

Accountability/business management: Improve business management systems and practices to enhance efficiency and accountability.

Initial progress on a project management system already ensured increased accountability and efficiency of staff and budgets. Key elements included the following:

- Budget database—A database was developed to capture hourly labor and expense/equipment expenditures as they were spent against the budget. The database was flexible and increased the accountability of clerical staff as they entered items into the database. We learned from the compiled database that numerous errors are made and that access to all expense/equipment invoices and all hourly labor time sheets was incomplete.
- Out of state travel—Out-of-state travel was tracked completely in FY04. This ensured complete accountability and expenditures within budgeted amounts. This required constant tracking of expenditures. Close tracking in FY04 kept us within the division's out-of-state travel budget.
- "Cheat sheets"—Guidelines for expense/equipment coding and time coding were developed for the FY04 fiscal year and incorporated into "cheat sheets" to facilitate use by staff.. Budgets for each account were distributed with the cheat sheets in mid-June 2003. Development of cheat sheets is important for accountability as well as a convenience for staff. Time coding was analyzed each month to ensure that staff coded time to the appropriate federal aid or emphasis area code. Analyzing time sheets closely in FY04 has decreased errors and ensured proper coding.
- Grants-Efforts to seek outside funds for Resource Science Division were elevated. Guidelines were developed and distributed; periodic information was provided to staff on available funds.

WILDLIFE DIVISION



WILDLIFE DIVISION

"Managing Wildlife...for the People"

The Mission of Wildlife Division is to conserve for long term public benefit Missouri's wildlife resources and the landscape elements on which wildlife depend, and to manage public lands to conserve and enhance their natural resources, provide vital ecosystem services, and invite public use and enjoyment.

Wildlife Division is responsible for the management of Missouri's wildlife resources to best serve the long-term interests of the people of the state. Wildlife Division commits to use of the best information, expertise and values to make informed judgments thereby benefiting wildlife health and ensuring wildlife resources are in better condition tomorrow than they are today. The Division's primary roles are to:

- Balance wildlife resource needs with public expectations.
- Advocate wildlife and biodiversity conservation.
- Actively seek ways to inform peers, cooperators and citizens about wildlife stewardship.
- Provide opportunity for all citizens to use, enjoy and learn about wildlife and their habitats.
- Manage 372 conservation areas and provide recreation, natural area and natural history support to all management Divisions and all Department land.

Fulfilling these roles involves a wide range of programs including activities on public and private land. Administration of hunting seasons, public use, and maintenance of effective liaison with other agencies help ensure that wildlife and wildlife habitat receive full consideration in all land management activities.

The Division also provides a number of special services designed to aid people in many aspects of wildlife conservation. These include technical advice to individuals and groups interested in wild animals, multi-media events on wildlife topics including web page information, publications and reports, and consultation with other state or federal natural resource agencies.

Activities described are directed towards achievement of the Division's primary roles.

Goal: Instill awareness and appreciation of wildlife through public contact, printed materials, and other media.

Progress: Coordinated development of *Conservation Currents, Conservationist* magazine articles, management leaflets, continued revision of the Wildlife Division and MDC public web sites, and Division participation in Missouri Outdoors programs and at the Ozark Empire and Missouri State fairs. Provided input on weekly statewide news releases. Wildlife Division partnered with Resource Science Division on organizing and implementing deer season public meetings.

Goal: Provide a variety of hunting and nature related recreational opportunities and facilities. **Progress:**

- 1) Deer Season Regulation Simplification/Liberalization:
 - a) Established an urban portion of the firearms deer season.
 - b) Increased the number of units open to Bonus Deer permits.
 - c) Decreased the price of First Bonus permits.
 - d) Allowed hunters to purchase and fill any number of Second Bonus permits.
 - e) Increased the number of units open during the antlerless portion.
 - f) Allowed the .410 shotgun with slugs as a legal method for deer.
 - g) Allowed qualifying landowners to farm tag 1 buck or 1 doe.
 - h) Allowed qualifying landowners to fill any number of Second Bonus permits.

- i) Allowed any number of qualifying landowners to receive permits for a given parcel.
- 2) Deer and Turkey Hunting Opportunities:
 - a) Conducted the 58th archery deer and turkey hunting season during which archers purchased 134,061 permits and harvested 33,526 deer and 1,632 turkeys with no reported accidents.
 - b) Conducted the 25th fall firearms turkey hunting season during which hunters purchased 28,658 permits and harvested 11,292 turkeys with 1 reported nonfatal accident.
 - c) Conducted the annual firearms deer hunting season during which hunters purchased 623,242 permits and harvested a total of 254,430 deer as follows:
 - (1) 1st urban portion—91 deer with no reported accidents.
 - (2) 3rd youth portion—9,117 deer with no reported accidents.
 - (3) 60th November portion 208,940 deer with 2 reported fatal and 10 nonfatal accidents.
 - (4) 16th muzzleloader portion—11,131 deer with no reported accidents.
 - (5) 7th antlerless portion—25,151 deer with 1 reported nonfatal accident.
 - d) Conducted the 45th spring firearms turkey hunting season during which hunters purchased 124,855 permits (including 11,231 Youth Deer and Turkey Hunting Permits) and harvested 56,882 turkeys with 1 reported fatal and 8 nonfatal accidents.
 - e) Conducted the 4th youth spring firearms turkey hunting season during which youth hunters harvested 3,258 turkeys with no reported accidents.
- 3) Special Permits Program:
 - a) Issued approximately 123,500 no-cost firearms Any-Deer and Bonus Deer permits to qualifying resident landowners, and a total of 1,344 reduced-cost firearms and archery deer and turkey permits to qualifying nonresident landowners.
 - b) Conducted 66 managed deer hunts at 37 locations where 5,549 hunters harvested 2,110 deer, and 5 youth-only managed deer hunts at 5 locations where 164 youths harvested 76 deer.
- 4) Waterfowl Reservation System:
 - a) The Waterfowl Reservation System was re-established during the 1998 season in response to public demand and to provide equal opportunity for all Missouri hunters and to encourage novice hunters.
 - b) Requests from over 11,994 hunters were processed and 7,659 reservation hunting opportunities were provided.
- 5) Increased dove hunting opportunities:
 - a) New areas to hunt and more acres of fields have provided increased opportunities for hunters to find an area closer to home.
 - b) Information was posted on the public web site to help direct hunters to locations on each area and provide crop and acreage information. Crop fields were identified on 99 conservation areas spread over 65 counties. Over 6,998 acres of managed fields were mapped as hunting locations.
- 6) Increased trail use opportunities: Provided about 1.5 miles of new trail. In coordination with Administrative Services Division, two trails, two viewing decks, and a wildlife viewing blind were completed on Diana Bend Conservation Area, immediately adjacent to Katy Trail State Park at Rocheport. The Rocheport segment is one of the most scenic and heavily used sections of the 225mile long Katy Trail, with approximately 400,000 visitors per year along this stretch. Partial funding for the project was provided by a Recreational Trails Program (RTP) grant, and the remainder by the Conservation Department. This project received the RTP Trail Achievement Award, sponsored by the Coalition for Recreational Trails.
- 7) A visitor center at Columbia Bottom Conservation Area was completed and opened to the public. It, along with other developments, provides self-guided access to the area and its resources, including an observation platform at the confluence of the Missouri and Mississippi Rivers.
- 8) On B. K. Leach Conservation Area, construction was completed on a 930 acre wetland and was initiated on a 1,800 acre wetland.

Goal: Bird Habitat Conservation Initiatives.

Progress: The All Bird Conservation Team met with Wildlife Division staff in the Northwest and Southeast regions to discuss implementation of the Birding Community Action Plan (BCAP). The BCAP outlines goals and objectives for WD staff, including projects with partners on MDC lands and on non MDC lands, and jointly conducted events. Priority action topics included: bird monitoring coordination and protocols, MDC conservation area bird checklist standardization with internet availability, bird identification training via computer software, sponsoring public events with birders, and project development with volunteers.

Goal: Develop and strengthen effective conservation partnerships. **Progress:**

- 1) State Wildlife Grants (SWG). State Wildlife Grants are a new funding source for state fish and wildlife agencies. Priority for these funds is placed on species with the greatest conservation need and consideration of the relative level of funding available for the conservation of those species. This new federal funding improves our opportunity to work with conservation partners. MDC provided \$304,000 in grants to conservation partners. Some of the cooperative projects funded by SWG include a bird conservation grant program developed with the Missouri Bird Conservation Initiative (MoBCI), prairie habitat management with the Missouri Chapter of the Nature Conservancy, sericea lespedeza control with Missouri Prairie Foundation and native fencerow plantings with Bradford Research and Extension Center.
- 2) Audubon Missouri (AM). An MDC Wildlife Ecologist continued to serve in joint capacity in the Audubon Missouri office. MDC provided funds through the Comprehensive Wildlife Strategy for the development of the Important Bird Areas (IBA) Focus Area map, which is the National Audubon Society's part of an international effort to identify and conserve the areas that are the most important for sustaining bird populations. MDC also committed to providing challenge funds towards the development of an Audubon Nature Center in Joplin, and is in the process of discussing the possibility of doing the same with the developing "Audubon Ark" floating nature center project in St. Louis.
- 3) Missouri Bird Conservation Initiative (MOBCI). The Missouri Bird Conservation Initiative brings together a wide variety of partners to facilitate "all bird" conservation throughout Missouri. MDC Wildlife Division Administrator David Erickson continued to serve on the MOBCI Steering Committee, and MDC staff participated in the Missouri Bird Conservation Initiative's conference in August. Partner organizations discuss common goals and strategies for everything from the assemblage of baseline data to monitoring to on-the-ground habitat projects. The most visible element of the initiative is the MOBCI Grant Program, initiated last year. The first round of MOBCI grants funded 13 projects, each from a different organization. Each grant was matched dollar for dollar or better by the grantee organization and its partners. In all, 30 organizations and four private citizens contributed to the program. An initial allocation of \$100,000 was increased to \$186,288 in order to fund all the projects deemed worthy by the MOBCI Council. These funds were matched by \$304,414 in cash or in-kind service donations from project partners. Three additional projects were supported by the Council but funded by other sources. A second year of MOBCI grants is being planned for FY2005.
- 4) Missouri Prairie Foundation (MPF). MDC supported the Missouri Prairie Foundation's Summer Sericea Team, which locates and treats infestations of sericea lespedeza on more than 3,000 acres of prairie owned by MDC, MPF and the Nature Conservancy. MDC contributed matching funds to help MPF complete a matching grants project with the National Fish and Wildlife Foundation at Golden Prairie. In addition to converting 60 acres of cropland to a rich prairie planting, the project constructed fence to help begin a patch-burn grazing regime on more than 1,000 acres in this important Grasslands Coalition Focus Area. MPF has acquired funds from other sources to continue

work at Golden in FY2005. MDC also supported the restoration of 40 acres at MPF's Prairie Fork Expansion Area. MPF will continue the work at that site in 2005 with private funding. MPF will develop a strategic plan by early 2005 thanks to a grant from MDC. MPF's plan will inform MDC's Comprehensive Wildlife Strategy development and will guide MPF for the next five years. As MPF moves toward an Executive Director model, MDC and the Foundation completed a short-term cooperative agreement to provide joint staff support for MPF and MDC grants and administrative projects.

Goal: Coordinate Conservation Planning.

Progress:

1) Comprehensive Wildlife Strategy (CWS). MDC is developing a Comprehensive Wildlife Strategy (CWS). This "blueprint for conservation" will guide future conservation action and it is a required product for states if they plan to use State Wildlife Grants in the future.

During the last year MDC has been ambitiously generating spatial data layers that will guide the selection of Conservation Landscapes. Two layers are nearly finished with two assessments, one aquatic and one terrestrial. These assessments provide a geographic structure to plan for representative aquatic systems and terrestrial systems. Together they identify Conservation Opportunity Areas that will benefit all wildlife. MDC has also been working with conservation partners to support development of strategic plans and spatial data sets that represent their conservation priorities. One example is Missouri Audubon. MDC helped Audubon in the development of Important Bird Areas program so that it could be integrated into the CWS.

The next step is to evaluate conservation opportunity across the state with conservation partners and sister agencies. The following partners are integral to the development of the CWS: Audubon Missouri, Missouri Prairie Foundation, Missouri Chapter-The Nature Conservancy, Ducks Unlimited, Grasslands Coalition, US Forest Service-Mark Twain National Forest, NABCI Central Hardwoods Bird Conservation Region, National Wild Turkey Federation, Conservation Federation of Missouri, US Fish and Wildlife Service, Missouri Department of Natural Resources, ONSR-National Park Service, Ozark Regional Land Trust, LAD/Pioneer Forest, Missouri Conservation Heritage Foundation.

The process for building the strategy will begin with ecoregional assessments developed by MDC. This framework, combined with the conservation goals of other conservation partners and fellow conservation agencies, can provide long-lasting guidance on the best places in Missouri to conserve all wildlife.

- 2) Quail Strategic Guidance. Implementation of the Strategic Guidance for Northern Bobwhite Recovery:
 - a) Regions are developing Regional Quail Recovery Plans.
 - b) The Quail and Grassland Bird Leadership Council and their technical committee were formed.
 - c) Quail monitoring was done at approximately 90 locations.
 - d) A cross—divisional quail workshop titled "Approaches to Early Successional Management; Edges, Landscapes, and Quail" was held in Rolla, with participation from Private Land Services, Wildlife, Protection and Forestry Divisions.
 - e) New Farm Bill practice-CP-33 (Habitat Buffers for Upland Birds) was approved and sign-up is ongoing, this is the first CRP program to directly address the needs of the bobwhite. Missouri received the highest allotment of acres.
 - f) New videos have been produced on quail workshops, edge feathering for quail, and the CP-33
 - g) A statewide quail marketing campaign has been developed.

- h) Some 32 public meetings have been held by Wildlife Division personnel to discuss quail management, including a joint workshop with Kansas Parks and Wildlife that drew 62 private landowners.
- i) The Conservationist magazine has highlighted quail and early successional habitat.
- j) Over 274,416 linear feet of edge habitat has been created for quail on MDC lands in the past year.
- k) Over 67,000 reported acres of public ground have been managed with a quail emphasis.
- 1) Management of natural communities has provided habitat for quail and an array of their habitat associates.
- m) Participation in the Central Hardwoods Bird Conservation Region Technical Committee has led to designation of savanna habitat restoration a priority.
- n) A biologist co-hired by MDC and Pheasants Forever is working to develop additional private land demonstration sites in NE MO.
- 3) North American Bird Conservation Initiative (NABCI). The All Bird Conservation Team (ABC) sponsored an all day annual Partners in Flight (PIF) meeting at the Midwest Fish and Wildlife Conference (Midwest) at Kansas City. Also, ABC partnered in a half-day PIF Symposium at the Midwest on planning and stepping down national PIF objectives to the implementation level. The ABC team participated in a Central Hardwoods Joint Venture Technical Committee meeting to select target species and habitats, and to discuss Coordinated Bird Monitoring, which is under considerable discussion at the national level through an International Association of Fish and Wildlife Agencies subcommittee.

Goal: Provide administrative support to the Missouri Natural Area System, the goal of which is designation and protection of high quality examples of every extant natural community in each of Missouri's natural sections.

Progress: Draft Natural Area nominations were developed for three new natural areas or additions-Mule Hollow Glade NA Addition in Shannon County on Peck Ranch CA, Pawnee Prairie in Harrison County, and Silver Creek/Wildcat Park Natural Area in Joplin, Newton County. Field visits and initial inventory work was started for Magnolia Hollow in Ste. Genevieve County, and Long Branch on Atlanta CA in Macon County. Two natural area nominations were approved by the Missouri Natural Areas Committee-MDC's Pawnee Prairie Natural Area (475 acres) and DNR's Chariton River Hills Natural Area at Long Branch State Park. No new natural area nominations received Conservation Commission approval during FY04. Management activities tracked on MDC natural areas include prescribed burning, exotic species control, haying, seed harvest, field trip usage, trail construction or maintenance, woody invasion removal, grazing and root digging.

Table 1. Missouri Natural Areas Ownership

(last update-June 30, 2004)

<u>Agency</u>	Number of Natural	Areas # of Acr	es (Hectares)
MDC	84	29,153	(11,807)
DNR	38	16,450	(6,662)
USFS	19	6,231	(2,523)
TNC	12	1,900	(770)
NPS	9	2,776	(1,124)
LAD	10	1,637	(663)
Other	<u>22</u>	<u>1,421</u>	(576)
TOTAL # of Natur	al Areas 180*	TOTAL Acres: 59,568	(24,125)

^{*}Agency totals are greater than the total number of natural areas due to several natural areas with multiple ownerships.

Table 2. Summary of Management Activities on Natural Areas.

	(nun	nber of areas				003)			
		MissouriUnit				Ozark Unit			
MANAGEMENT ACTIV	ITY	NW	NE	<u>KC</u>	<u>C</u>	SW	SE	SL	OZ
Prescribed Burns:		5	0	3	1	1	1	1	6
State Total: 18	Unit Totals:	9				9			
Exotic Species Control:		NW	<u>NE</u>	<u>KC</u>	<u>C</u>	<u>SW</u>	<u>SE</u>	SL	<u>OZ</u>
		4	0	6	1	5	2	0	5
State Total: 23	Unit Totals:	11				12			
Hayed Areas:		NW	NE	<u>KC</u>	<u>C</u>	SW	<u>SE</u>	SL	<u>0Z</u>
		0	0	2	0	5	0 .	0	0
State Total: 7	Unit Totals:	2				5			
Seed Harvest:		NW	NE	KC	, <u>C</u>	SW	SE	SL	<u>OZ</u>
-		2	1	5	1	1	0	0	0
State Total: 10	Unit Totals:	9				1			
Restoration Nat. Comm.		NW	NE	<u>KC</u>	<u>C</u>	SW	SE	SL	<u>OZ</u>
		1	0	0	1		0	0	3
State Total: 5	Unit Totals:	2				3			
Field Trips:		NW	<u>NE</u>	KC	<u>C</u>	SW	SE	SL	OZ
		2	1	3	1	1	0	0	1
State Total: 9	Unit Totals:	7				2			
Trail Work:		NW	NE	KC	<u>C</u>	SW	SE	SL	OZ
		2	0	2	4	2	7	2	2
State Total: 21	Unit Totals:	8				13			
Woody Invasion:		NW	NE	KC	<u>C</u>	SW	SE	SL	OZ
		4	2	3	1	4	2	1	3
State Total: 20	Unit Totals:	10	_	-	***	10	-	_	
Root Digging:		NW	NE	KC	<u>C</u>	SW	SE	SL	OZ
root nighting.		0	0	0	0	0	0	1	0
G	Unit Totals:	0				1			
State Total: 1 Grazed:		NW	NE	KC	<u>C</u>	SW	SE	SL	<u>oz</u>
Grazed:		0	0	1	0	$-\frac{3W}{0}$	0 0	0	0
	Unit Totals:	1							
State Total: 1	Onit Totals.	'				"			

Goal: Conduct wildlife habitat management 372 conservation areas totaling approximately 333,985 acres of Department-owned land and 179,791 acres of leased or licensed land.

Progress: Management for each area depends on local conditions. Emphasis is placed on restoring productive natural communities such as prairies, glades, wetlands, forests, and savannas. Demonstration practices are installed to acquaint landowners, hunters, birders and other citizens with methodologies for resource-sensitive land use practices. Implementation of habitat management is done according to plans developed through an interdisciplinary process. Existing soil, water, vegetative and cultural features are considered in area development. Wildlife resources having greatest potential for response are emphasized in area management. Recreational opportunities compatible with those resources are permitted as appropriate.

Direct management techniques were implemented to improve wildlife habitat on 160,037 acres, including 56,721 acres of cropland, 32,510 acres of grassland/prairie, 32,313 acres of wetland, 4,033 acres of forest, 19,533 acres of old field, 3,182 acres of glade, and 11,747 acres of savanna. In addition, 71,788 trees were planted.

Goal: Conduct habitat/farm planning with landowners.

Progress: Private land management efforts are coordinated with related agricultural agencies, landowners, and Department field personnel. The overall goal is to improve wildlife habitat on all land types of grassland, wetland, cropland, woodland, and idle areas. Wildlife Division provides two focal points in private land delivery: 1) Delivery of wildlife diversity, species of concern and endangered species private land assistance, and 2) Private land assistance in key focus areas surrounding core public lands or other significant habitats.

In FY 04, the agency-wide Landowner Incentive Program (LIP), a federal/state partnership program, and endangered species efforts were consolidated within Wildlife Division. Two term positions devoted to LIP implementation were established.

Specifically, Wildlife Division staff provided wildlife habitat improvement advice through contacts with private landowners, including 650 farm plan contacts, 42 incentive program contacts, 178 workshop/program events, and 861 interagency coordination contacts.